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Governance patterns and performance of regional strategies in peri-urban areas **Comparative analysis of seven case studies in Europe and China**

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Abstract

This report examines how different regional and local governance patterns and specific spatial planning strategies impact on peri-urban land use in Rural Urban regions. It draws from seven regional case studies, presenting a diverse mix of strategies ranging from protecting biodiversity and agricultural land, creating recreation and tourism opportunities to reducing pressure from building and infrastructure development. To study the means of influence or power an analytical framework of ‘policy arrangement’ was employed (Tatenhove *et al*, 2000): specifying rules of the game, resources, coalitions and discourses. Both government and nongovernment actors such as environmental groups or developers can form coalitions, adopt rules, employ resources and develop discourses to influence policies and developments in urban regions. The analytical and assessment frameworks defined by regional researchers and practitioners helped to organize the case study data and to evaluate both processes and outcomes of governance in peri-urban areas. The outcomes are represented in a summarized way for each strategy and region.

The report provides examples of unsustainable developments in peri-urban regions and how certain strategies helped to counteract these, and emphasizes the importance of recognizing peri-urban areas as a policy field in its own right.

A sustainable spread of land use over the Rural Urban region requires regional authorities whose jurisdiction covers the Rural Urban region and who have the appropriate mix of policy means of influence and relative power over lower level authorities. Under the current predominant discourse of ‘sustainable’ development largely being equal to economic development, the outcome of sustainability concerns depends on urban areas taking financial responsibility for the inclusion of common good interests such as ecosystem services, cultural heritage and social and environmental justice into the peri-urban areas. Recommendations for policy makers at different levels conclude the report.

key-words: means of power, means of influence, policy arrangement, discourses, rules of the game, resources, coalitions, sustainable land use, peri-urban, regional authorities, strategies



Spatial scale for results: Regional, national, European	Regional
DPSIR framework: Driver, Pressure, State, Impact, Response	State, Responses, Impacts
Land use issues covered: Housing, Traffic, Agriculture, Natural area, Water, Tourism/recreation	Housing, Traffic, Agriculture, Natural area, Tourism/recreation
Scenario sensitivity: Are the products/outputs sensitive to Module 1 scenarios?	No
Output indicators: Socio-economic & environmental external constraints; Land Use structure; RUR Metabolism; ECO-system integrity; Ecosystem Services; Socio-economic assessment Criteria; Decisions	Socio-economic and environmental external constraints; land use structure; RUR metabolism; Eco-system integrity, Ecosystem Services and Decisions are considered, but in general not in terms of output indicators.
Knowledge type: Narrative storylines; Response functions; GIS-based maps; Tables or charts; Handbooks	Narrative storylines, tables, charts, GIS based maps.
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1. Introduction and methodology

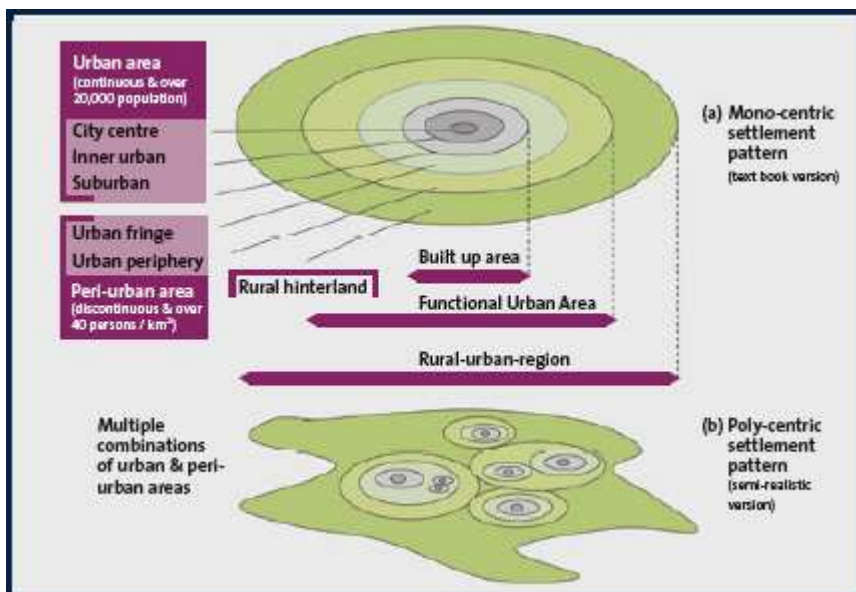
Policy challenges in the peri-urban areas

The subject of this comparative study is *Rural-Urban Regions (RUR)*, which is based on the concept of Functional Urban Regions (FUR) as an urban core and its surrounding commuting ring, which can extend to include both the rural and peri-urban regions. So the Rural Urban Region also included the wider area for recreational use, food supply, nature reserve functions and other ecological services outside the commuting ring. There are a range of particular policy challenges in the peri-urban area and the rural hinterland of these RUR.

Competition over land use generally characterizes the peri-urban area which serves many interests – from expansion of industrial and residential settlements, over agriculture and sometimes also forestry, to recreation and protection of high-value nature areas. While some of these interests are inherently private and their development primarily guided by economic gain, others are public goods that require attention through government action at national and sub-national levels.

In addition to national and EU policy settings that affect peri-urban areas, policies of several adjacent municipalities, as well as different sector and regional policies interfere with each other in these areas. And, for certain countries, like Germany, the federal states with their own policies also form a tier that affects peri-urban areas. They can thus be characterized as areas with fragmented jurisdictions and multiple-level policies both vertically (across government levels) and horizontally (between governments at same level, across sectors and among public-private actors).

The complex policy arrangements include both institutional frameworks and policy instruments targeting the peri-urban area at multiple levels of government. Problems of implementation deficits with sector-based strategies are commonplace with fragmented institutionalization, calling for increased co-ordination and integration mechanisms (Tatenhove *et al.*, 2000). In the PLUREL project, we examine how regional and local strategies impact on peri-urban land use. What role does government play in relation to private interests to steer the development of these areas? To what extent is it possible to detect patterns of governance that may control such land use developments? How can policies be improved or developed to foster more sustainable outcomes for the peri-urban areas?



Peri-urban areas and the “Rural Urban Region” (by Joe Ravetz)

Governance patterns and performance

The aim of this report is to compare the performance of different strategies for peri-urban areas, reflecting upon their critical policy dimensions and their contributions to sustainable development of rural urban regions in general and the peri-urban area in specific. Empirically, the report draws from seven case studies conducted within the PLUREL project, that examine the situation in peri-urban areas – of which six across Europe – Warsaw region in Poland, Leipzig-Halle region in Germany, Koper region in Slovenia, Greater Manchester in the UK, Montpellier Agglomeration in France, the Hague Region in the Netherlands, and one - Hangzhou region - in China. The case studies were selected from both west and east European countries to illustrate the possible variation of problems and governance solutions depending on the political, economic and institutional trajectory of each country. In addition, a case study from China was added as contrasting example of how peri-urban policies might be perceived and dealt with in a completely different setting compared to the EU member states.

These case studies were undertaken by national teams of researchers in collaboration with regional and local actors. The researchers agreed from the onset of PLUREL to develop 'endogenous' knowledge from the regions. In particular, four types of policy objectives were deemed central by the national project teams:

- to strengthen agriculture in the urban fringe,
- to protect biodiversity areas at risk,
- to reduce housing/industrial building pressure
- to integrate tourism and recreation in the development.

The research objectives include:

(1) to describe the spatial planning and governance strategies for the urban fringe, and
(2) to evaluate how the strategies perform in relation to a set of criteria generated within the case study research both on sustainability of green open space in the urban fringe and on aspects related to governance structures.

N.B. It was only towards the end of the project that the area definition by Ravetz (see previous page) was developed. In our research we have used the words *peri-urban* and *urban fringe* interchangeably.

The research focused especially at the process aspects and decision making mechanisms, following a common 'Joint Analytical Framework' (Aalbers and Van Dijk, 2008a). To subsequently assess the performance of the strategies, the case study researchers developed a list of criteria based at a certain common understanding among researchers and regional actors (formal governments, business and civic organization representatives) in the case study discussions. These criteria were laid down in the Framework for the assessment of regional strategies' (Aalbers and van Dijk, 2008b), as well as the assessment method. Hence the preservation and development of green open space in the urban fringe were central objectives in the strategies, though at times indirectly focused, using economic levers to contribute to green open space.

These exercises, however, did not lead to full consensus among the researchers on two issues: neither on what constitutes 'sustainable dispersion' nor on what 'sustainability' might mean in the specific cases. The performance criteria concerned mostly the effectiveness and efficiency of strategies and the output in terms of a sustainable balance between urban and rural land uses. Also empowerment and social inclusion issues were considered.

We believe it is possible to describe and compare the case studies according to a framework that is based on these two previous frameworks. It allows us to further expose the means of influence employed in the regional governing, interpret the situation and make comparisons across the case studies.

Our challenge is to both aim at in-depth analysis and refer to the broader patterns at the same time, which is important for practical insight. The broader perspective is described by the general government structure and policies that the case studies have examined. The in-depth analysis is presented by the study of a practice based selection of strategies

that focus at main issues in relation to green open space in the urban fringe. The selection of those strategies was suggested by the practitioners in the case study regions. Our analytical framework is further described below. The detailed case studies are available on www.plurel.net (not yet public).

Methodology and analytical concepts

Sustainability of the urban fringe

Urbanization and development constitute one of the most critical issues facing the EU and the world, and in particular, the preservation and development of green open space in the urban fringe. The underlying assumption is that the availability of these services in an urban region is essential to the sustainability of the region. Green open space contributions to the quality of life of urban dwellers, including ecological services, agricultural production and the regional economy (via recreation and tourism) were deemed essential to this sustainability (Aalbers and van Dijk, 2008a).

Multilevel governance

The study of governance in the urban fringe concerns both the government practices at multiple levels and the involvement of private actors. Multilevel governance as a concept has been interpreted in several ways and remains a rather fluid theoretical basis for empirical research (Pierre, 2000; Pierre and Peters, 2005; Rhodes, 1996). It initially described a “system of continuous negotiation among nested governments at several territorial levels – supranational, national, regional and local” (Marks 1993:392) but the term has come to also include the diffusion of decision making to informal and overlapping policy networks (Kohler-Koch and Eising, 1999). The core in the definition of governance is in the ‘erosion of traditional bases of political power’, i.e. the changing institutional position of the nation state (Pierre, 2000: 1). This erosion is based on three simultaneous processes:

1. that national governments have through the deregulation of financial markets lost control possibilities to international actors as well as to business corporations;
2. an increasing role for non-government actors in policy networks regardless of states;
3. a strengthening of the position of local and regional level actors.

Hence, local governments, civic organizations and networks involving business are increasingly able to introduce their own policies, and influence policy-making processes on different system levels. This means, according to Pierre (2000:1), that a simultaneous movement of political power is occurring up to trans-national levels of government and down to local communities, but in a coordinated manner.

Two ‘ideal types’ of governance

Hooghe and Marks (2003) identify five schools of thought (‘literatures’) concerning this diffusion of authority, i.e. concerning governance. They conceptualize two types of governance on the basis of the distinctions made in these literatures. The first ‘ideal type’ of multi-level governance is that where the nation-state still retains a leading role and can, up to some critical level, steer the development. Type I governance describes a limited number of multi-task, general-purpose jurisdictions with nonintersecting borders and where each next sub-level is nested within the previous level (Hooghe and Marks, 2003). Type I involves a range of actors but are general-purpose, durable and with non-intersecting membership in ‘the community’, bundling policies together. This development can be called vertical multilevel governance. Even if the state still has a considerable level of control possibilities, the three movements of power summed up above, means automatically that local governments are gaining in power, including more political influence within the nation-state but also in an international setting. In reverse this means also that other units than national governments can and will influence the policy processes at the local level, through sub-governmental, trans-national networks and international organizations. This gives for example the European Union another channel to change political behaviour in local governments, something that has especially become visible regarding sustainability policies.

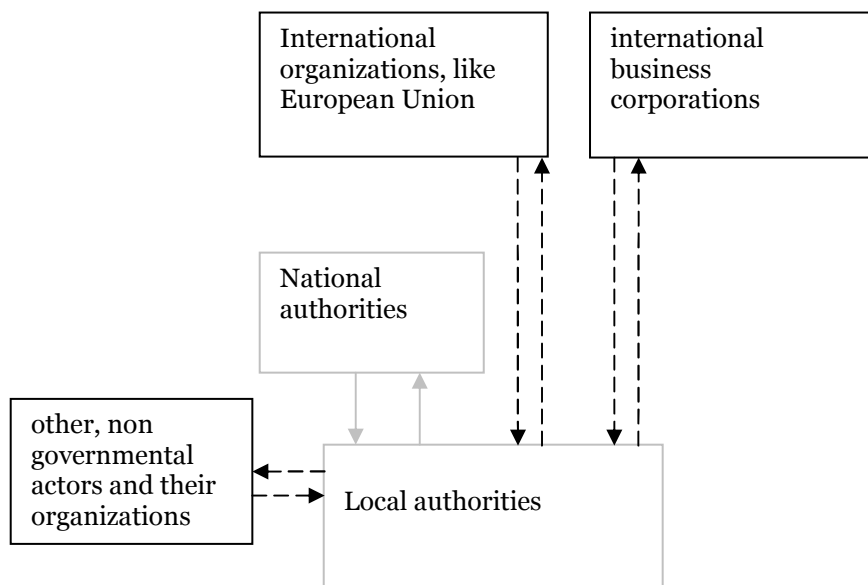


Fig. 1
Erosion of traditional power of the central State (grey arrows). International organizations and local authorities' relations and influences accrue (black intermittent arrows).

The second ideal type of multilevel governance is designed with respect to solving particular problems - to provide functional specificity. The constituencies - the actors - of Type II governance can even be individuals who have common need for collective decision making, and one individual can be a member of several of such groups establishing jurisdictions. Many Type II jurisdictions do not seek to resolve fundamental disagreements by deliberation but, instead, avoid them by allowing individuals to choose among competing jurisdictions (Hooghe and Marks, 2003). While Type I governance is designed around human (usually territorial) community, the latter is designed to address particular tasks or problems. The Type I and II governance may well co-exist, but the dominance of each model is expected to provide different outcomes in terms of democracy and provision of public goods.

Governance as a challenge to representative democracy

Both types, however, imply a certain shift of responsibilities from governmental actors/authorities towards non-governmental actors. National governments have responded to these changes by introducing new elements into existing structures as well as new policy instruments that involve a larger share of local communities and other actors, such as co-operative and non-legal agreements between public and private actors (e.g. Jänicke & Weidner, 1997, Baker and Eckerberg, 2008). This means that both national as well as local governments' autonomous position is constrained by new political actors, different than actors participating in the 'normal' political process. The scope of the political process is widened, and becoming more open to influences from stakeholders, thus circumscribing established forms of representative democracy. Frequently, however, empirical studies of multilevel governance – especially from the local level perspective - come to the conclusion that the role of national government, even if eroded from several directions, is still central to most policy-making processes (Eckerberg and Joas, 2004, Evans *et al.*, 2004). Hence, rather than a shrinking role of government, we are witnessing a shifting role as private and third sector engagement (such as voluntary organizations, charities, social enterprises, cooperatives) and interactions in policy making increases (Kooiman, 1993).

Multilevel governance thereby allows decision makers to adjust the scale of governance to reflect heterogeneity, since for example ecological conditions may vary from one area to another (Hooghe and Marks, 2003). But as noted by Baker and Eckerberg (2008) among others, it should be emphasized that governance and government are the two intertwined but distinct elements of the process of governing. The combination requires the active engagement of local civil society combined with the commitment, leadership and steering by local, national, governments and international authorities (see also Evans *et al.*, 2004). This can, in turn, generate the local resources, support and energy needed to deliver outcomes. Major roles for the state remain and continue to be evident, including the need to promote political objectives and pursue the collective interest. (Pierre, 2000:4). One of the main roles of the state is to intervene in the face of market failure.

Analysing multilevel governance through the lens of policy arrangements

Tatenhove *et al.*, (2000) define environmental policy arrangements in terms of policy coalitions, policy discourses, rules of the game, and resources. They have analysed how the organization and substance of environmental policy has developed due to the process of policy change. We find that the concept of policy arrangements is particularly useful for our study of patterns of governance in the urban fringe, since it distinguishes the level of hierarchical governance as well as the extent of networking governance referring to the actors, resources and discourses that influence policy outcomes. They join Giddens' structuration theory which conceptualises organizations as social systems, being sets of agents that are nested in structures of rules and resources (Giddens, 1984). In this, the three main dimensions of organization can be distinguished: agents (coalitions), rules and resources. The second aspect of the policy arrangement concept, substance, is operationalized in terms of 'policy discourse' (compare: Dryzek, 1997; Hajer, 1997). In our analysis of peri-urban policies, we will be guided by these variables to distinguish different patterns of policy arrangements which, in turn, also relate to the two types of multilevel governance. Based on Tatenhove *et al.*, a short explanation to the variables will be given in the following, with some initial thoughts on how they apply to, and affect, our analysis of the outcomes and process of urban fringe policies.

1. **Rules of the game.** National legislation and institutional structures provide for different planning cultures in the different national contexts, including both formal and informal institutions that involve organizational as well as value patterns. Those differences in terms of spatial planning have been explored and described in a separate report (Tosics *et al.*, 2009). In principle, this categorization distinguishes between different types of territorial governmental systems – from unitary to federal states – and between strong and weak local governments. An indicator is created to measure the potential strength of the public hand in spatial planning across the national settings, which can be used to distinguish different emphasis of (state) government versus (private) governance arrangements. The rules of the game can also be examined specifically for the different types of strategies, for example to what extent Type I or Type II governance dominates for the different issue areas. The rules determine by which procedures, which allocation of tasks and division of competencies the strategies are to be formed. They further delimit which actors are meant to be involved, how agendas are set and decisions are supposed to be made. The rules of the game may include both formal and informal institutional patterns. Hence, the rules of the game 'set the scene' for the role of governmental steering.
2. **Financial and land resources.** The allocation of power over land and the mobilization of resources are central to explain how agents maintain and transform their social or physical environment. The ability to achieve particular outcomes also depends on the autonomy and relations between actors, and interrelations between state, market and civil society, which in turn may be classified as state-centred, corporatist, or liberal arrangements where the state agencies are dependent on companies and non-government organizations to create sufficient support and legitimacy for particular policies. In more practical terms, the type of land ownership and the availability of land resources for expanding urban settlements provide basic

determinants for what development is possible. For urban fringe policy, it is relevant to investigate what the broadening of policy coalitions (see next) mean for the allocation of financial and land resources, and who takes over power from a potentially withdrawing state.

3. **Policy coalition development.** A policy arrangement can be characterized by certain coalitions of players (agents) who share interpretation of a policy or resources, identify similar policy goals and mobilize to reach those goals. Some policy coalitions may support while others may challenge a particular strategy. Studying the development of policy coalitions tells us something about how some actors' strategic conduct succeeds while others do not. It also provides evidence on the strength of public versus private governance networks. Empirical observations on the ways in which policy coalitions link between local, regional, national and supra-national levels, and across policy sectors, may also inform about the nature of multilevel governance structures and about to what extent and in which contexts certain coalitions may be successful in achieving its aims. Questions of democratic legitimacy and accountability may also be asked in this context.
4. **Policy discourses.** A policy discourse refers to a shared way of apprehending the ways in which the problems are defined, reproduced and transformed in particular sets of practices. It provides assumptions, judgements and contentions for interpretative schemes by which meaning is given to environmental (or other) problems, and which form the basis for the design of policies. The mobilizing capability of different policy discourses may be investigated, as well as variations in predominant discourses across countries and different policy coalitions. Such discourses may also provide statements and positions on the role of the state and the nature of interactions among actors in policy coalitions. Further, the nature of policy discourses may reveal patterns of 'branding' of policy – i.e. how successful policies are motivated and conceived among actors. In our study, the discourses have been examined by the respective case study teams, using available information about the various strategies promoted in the seven case study areas. It should be said here that we do not claim to have conducted in-depth discourse analysis, but rather use the concept of discourse to briefly characterise the prevailing debates and arguments.

The comparison of assessments in the seven case study areas will be made according to the above-mentioned variables on outcomes and processes of peri-urban policies and strategies. Since all case studies did not involve assessment for all policy objectives, the comparison will pertain to what information was gathered.

The impacts of the different strategies have been assessed by both practitioners and researchers. Since such assessments contain inherent uncertainties in time and space we will refrain from making final conclusions on the outcomes for different aspects of sustainability of green open space in the region. Rather, we will present indicative findings based upon observations from the case study research under the heading of 'performance', which may then be related to the characteristics of the policy arrangement variables for each strategy. Altogether this report should help readers from European regions to see more clear into the workings of specific policy variables influencing land use developments in the urban fringe.

Before we go into the comparison of the strategies devised for the different policy objectives, a more general introduction to the seven case studies is required. In chapter 2 we firstly describe the land use developments, strategic issues and government structure and policies for each region. They provide a certain variation in the overall framework conditions for policy arrangements, which we will return to in our final conclusion. Secondly, we give a brief summary of the investigated strategies per region, in terms of policy arrangement and evaluation of critical factors that might explain the performance. Thereafter, in chapter 3 we compare the case studies in terms of emerging governance patterns and methodological insights from the use of 'the policy arrangement' as our analytical framework. On the basis of these comparative findings, chapter 4 presents our

conclusions. Finally, chapter 5 draws some more practical recommendations for policy development in peri-urban areas to be used as input to future decision making.

2. Performance of strategies against the background of regional land use developments and general governance setting

Introduction

This report aims at the comparison between the cases and brings the research a step further in terms of drawing general patterns and lessons that can be learned. As table 1 shows below, the case study regions and their central urban city display great variation in their total population, territorial area of coverage and population density. Of the seven case studies, the most densely populated of the peri-urban regions is The Hague Region, while the least populated is the Mazovian region surrounding Warsaw. However, in terms of number of total inhabitants, Hangzhou is by far the largest city region and Koper the smallest of the investigated areas. This comparative table is required for understanding the setting in which the policy actors work and the people in the regions live.

region	inhabitants	Inhabitants/km2	Area (km2)	Number of municipalities
Hangzhou city	4,100,000	1,335	3,068	-
Hangzhou municipality (=region)	6,600,000	398	16,596	1
The Hague	474,000	4,800	98	1
The Hague Region	993,000	2,500	451	9
Koper municipality (=region)	49,303	158	311	1
Leipzig	511,000	1,650	298	1
Leipzig-Halle FUR	2,000,000	500	4,386	88
Greater Manchester GM10	2,500,000	2,000	1,280	10
Montpellier city	250,000	4,450	57	1
'Montpellier Agglomeration' (2005)	400,000	922	434	31
Montpellier FUR (2008)	500,000	300	1,500	40
Warsaw city	1,700,000	3,291	517	1
Warsaw metropolitan area	3,000,000	483	6,025	72
Mazovian region (FUR, NUTS2)	5,000,000	140	35,598	314

Table 1.
Basic population and territorial data per case study region

In the first part of each regional description maps are shown that display the Functional Urban region and the core city.

In the following, we describe for each of the seven case study regions firstly the present land use developments and main strategic issues. These set the scene against which the relevance and the performance of the strategies must be evaluated. We also present briefly the overall governance setting of the region as policy arrangement because it influences the possible effect of the policy arrangement of each of the strategies lighted out for the region. Next we describe these strategies that were studied in-depth in each

case study region. Each regional section ends with overall conclusions on the policy performance for the respective region. Both the developments in the region and the overall conclusions contribute to the final conclusions chapter. The PLUREL project also aims at understanding the importance of spatial concepts. These obtain special attention in the regional description and conclusions as important for creating synergy between actors and spatial cohesion and land use efficiency.

We have drawn the land use developments, overall governance setting and performance info from the fourteen case study reports (2 per region) and structured and interpreted them according to our framework for analysis in terms of policy arrangement and drawn our own overall conclusions. For more detailed information on the general setting, land use developments and particular strategies we refer the reader to the individual case study reports.

The Hague Region, the Netherlands

(Aalbers *et al.*, 2009a and b)



Fig. 2

At the right the Province of South Holland with the urban areas in pink. The Hague city is located in the North along the coast (left border). The larger urban area in the middle is Rotterdam. (map by DSA, Rotterdam)

Land use developments and strategic issues in the region

The Hague Region is located in the Randstad Holland, bordering the sea. The Hague, Delft and Zoetermeer are some of the region's larger cities. The Functional Urban Region extends further outside the limits of The Hague Region jurisdiction. Land use is defined by high density of population, high city pressure, the threats of the sea, the protected natural zones, the protected drinking water purification area in the dunes and extensive horticulture centres of Westland. About 85% of the population lives in urban parts in the region and 15% in the fringe. Population growth in the Hague is estimated at 0,3% annual (2005-2015) (Derks *et al.*, 2006) The Hague is the seat of Dutch central government. The Hague region is an agglomeration with economic potential and internationally renowned knowledge centre in greenhouse horticulture. It is hosting also international knowledge clusters on biotechnology, space and aviation technology, ICT/Telecom and international law. A large number of business organisations and institutions are situated in the region, all of them demanding space for work, housing and leisure. The region sees its challenge in the facilitation of further economic growth and at the same time keeping vital the peri-urban areas.

The City Region of The Hague has established a policy regarding the peri-urban areas under city pressure. The main challenge that the region perceives for the years to come is to strengthen and widen the economic basis of cattle breeding in the rural areas, as it

considers farmers as those who can take care of landscape and nature qualities for the benefit of both the city and countryside. Although dairy farming was the origin of the traditional Dutch meadow landscape, agricultural land is now considered scarce with current grasslands covering 24% of the total land area. The dairy farming sector is still economically viable. In addition, the 14% of lands covered by greenhouses are also statistically regarded as being in agriculture use, although the common perception classifies those as industrial food production. Greenhouse horticulture is economically profitable, and its continued expansion is foreseen. However, water problems are emerging and the capacity for removing and storing water is low. Also, climate change is a growing threat due to the result of a rising sea level. But the presence of the sea is also seen by the local authorities as a beneficial factor and a chance to boost the allure of the region by carefully nurturing the resort capacity, by enhancing the cultural facilities and by building a luxury residential area for ex-pats (the International Zone) in close vicinity to the sea, giving response to the desires of the big international community in the region. The region also wants to boost its international allure and remain attractive to live and work in. In a densely populated region this demands a creative approach. Physical and social cohesion are also of interest in view of the changing multicultural society and use of green open space. In the City of the Hague 50% of the population is immigrant, while in the region the share of immigrants is estimated at 1/3 (Aalbers *et al.*, 2009). The City Region is especially interested in new trends in planning regulation and legal issues concerning land ownership. It targets an 80% realization of new housing within the existing urban limits. The other 20% is foreseen in the existing green enclaves that form the region's urban fringe. (Aalbers *et al.*, 2009) Another important issues at stake in this region is the traffic congestion around The Hague Region. During the interviews carried out by the evaluation team, it became clear that many view the entire Hague Region as peri-urban, since there is little, if any, 'real' rural areas left. There are no clear boundaries as to what constitutes the urban fringe, but respondents tend to refer to embedded peri-urban areas in the urban landscape.

General government structure and policy arrangements

Rules of the game

According to WGR+ region regulations the Province obliges municipalities to work together as a region on planning, housing, land policy, environment, economic development and traffic. The region has the WGR+ right to compile regional branding. (Aalbers *et al.*, 2009a:123) The City Region of the Hague is such a regional authority in which nine municipalities co-operate. The municipalities have planning autonomy, but the region has formal authority to influence through a regional structure plan. The City Region is responsible for coordination of spatial planning, water and green policies, traffic and transport, economic affairs, housing and environmental issues.

The regional authority also implements the rural development programme. The regional water board is responsible for the critical tasks of water management. The new national law of planning from July 2008 gives the municipalities greater autonomy to act since provincial authorities – a higher level than the City Region - no longer need to approve all municipal zoning plans. At the same time, however, provincial and national authorities have more instruments to intervene in municipal zoning plans should the municipalities not convey with the policy goals set at higher levels of government. This provides for more intensive anticipatory interaction between tiers of government, though higher level authorities seem cautious of intervening in lower level planning.

The national 'Green Heart' planning concept was developed in the mid 20th century, intended as a large green open space amidst the cities of The Hague, Rotterdam, Utrecht and Amsterdam, including the buffer zone policy which gave special status to designated areas.

Financial and land resources

The national bufferzone policy entailed the purchase by the state of as many land titles as possible, giving the state the decision power over this land use. This policy has been assessed as highly effective (Bervaes *et al.*, 2001) since urbanization has been low in those

buffer zone areas. More recently, additional instruments for nature conservation have been joined by more flexible nature development. Rising land prices inhibit investments by younger farmers. State funds provide much of the budget for the authorities in the Hague Region. The State has acquired rural land for recreation, nature conservation and water storage. Especially meadows have become so scarce that there is political support for protection measures. As for the Green and Blue Services initiatives, a major obstacle for expanding this voluntary scheme is the rising land prices. The strategy for green open spaces is heavily dependent on investment capital from outside of the region itself.

Policy coalition development

In a special platform - 'Peri-urban Haaglanden' - representatives of urban and rural organisations exchange information on policy development regarding the urban / peri-urban relationships and define measures maintaining the balance between the cities and the agricultural areas. Important private actors in the peri-urban areas are employers, property developers, farmers, nature conservation- and environmental groups. All of these have national bodies to represent their interests, who are actively lobbying also at the regional level. Some civil society organisations are also active in the urban fringe areas of the Hague Region, or parts thereof. Attempts are made to connect discourses and spatial concepts to several of these areas to raise their leverage. The disappearance of cows from the landscape has led to protests from both civil society and private developers. Less active lobbyists include recreational interests and city-dwellers, and ethnic minority groups are particularly absent from the discussions on green open space, even though immigrants make up about one third of the region's population. Even property developers acknowledge the value of green space as a backdrop for their housing projects. Nevertheless, the fringe is increasingly perceived as cluttered by roads and urban sprawl. The division between agricultural land in 'glass' (greenhouse horticulture) and 'grass' (dairy farming) clearly plays out in the geographical and political layout of the area. Whereas there is currently a powerful lobby for the conservation of both the 'glass' and the 'grass' landscape components, both are feeling the pressure of further building development. However, building on grasslands is much cheaper, as is also the development of ecological restoration and recreational facilities. The agribusiness community on grasslands cannot fully counter the forces of construction pressure. On the 'glass' lands, the 'red-for-green plan' in the Westlandse Zoom permits the replacing of greenhouses by private housing, with gardens provide a green link between the Midden Delfland and the coast. However, environmental groups expect a very limited benefit from this green space as it will be non-accessible to the public through private fencing.

The 'blue services' for which farmers receive payments from governments in exchange of water storage nature-friendly banks provide possibilities for cooperation across urban-rural communities and also result in 'green services' for ecological and recreational development. Such funds are provided by the Farming for Nature project in the Biesland polder, the Green Fund for Midden Delfland and the European Rural Development Programme. Nevertheless, many environmental groups express their disappointment with government authorities in that they do not practice what they preach. Environmentalists are concerned with the priority given by the authorities to economic and demographic development at the expense of ecological and landscape values. Finally, the peri-urban areas provide space for recreation including visits to historic and nature sites, cycling and walking. Even though recreation represents a powerful economic sector, however, those interests are rather organisationally fragmented and less influential as a coherent group in policy making other than as a recognition of the general public interest of their positive effects on well-being.

Policy discourses

The main goals for the Hague Region area are international competitiveness and to create a favourable investment climate. It is therefore branding itself as region with The Hague as an 'International city of peace of justice'. The green open landscape is seen as an attractive

feature worth preserving and further urbanization as undesirable. Regional developers are also aware of the commercial value of green areas. (Aalbers *et al.*, 2009a :51) The dominant policy discourse is to practice 'infill policy' with new constructions primarily located within the current urban fabric. The Hague city endeavours to meet 80% housing needs inside municipal boundaries, creating pressure on green areas inside the city. (Aalbers *et al.*, 2009a:104) At the regional level the concept of concentrated growth is also adopted, with the intention to realize 50% of new construction needs within existing urban fabric. Green structure, with large-scale green landscapes, ecological corridors and recreational routes are promoted along public transport axes as City Region Network (Aalbers *et al.*, 2009 a, 104).

Farmers are seen as 'stewards of the landscape'. However, the peri-urban areas are also described as poorly accessible and poorly equipped for recreation. The distinctions between 'glass' and 'grass' agriculture are pronounced both in urban-rural relationships, market chains, discourses and policy development. The Regional Structure Plan for The Hague Region has adopted a planning strategy that aims to achieve protection for both the 'grass' and the 'glass' areas, but in practice the planning policy stresses the 'grass' areas since the problems for those areas are more urgent and they are perceived as more vulnerable to land use changes. The 'grass' areas have greater potential for urban-rural relationships as the meadow landscapes are attractive for leisure and recreation and can provide local food markets.

The Hague Region's green space has been called 'the green gold of the Hague Region' by its regional planners and cultural aspects are used to promote a discourse to make the green areas important to the city. This 'green and culture' discourse was introduced in the long-term strategy for green areas to link parks to their estates and meadows to their windmills with the purpose to strengthen the regional identity of the region and the urban-rural relationships.

The integration of culture and landscapes is a new trend in the Netherlands. The aim is to conserve landscapes by means of development. There is a widely accepted approach for built monuments and landscape heritage with special focus on value and information to be passed on to future generations According to the basic principle of Belvedere Strategy by the Ministries of VROM, LNV, OCW, VW (Aalbers *et al.*, 2009a:87- 88). The so called Green Heart canon is developed to reformulate this framework for society. The cultural and ecological sector tend to increase power by making meaningful combinations with other themes to strengthen impact and increase funding options. (Aalbers *et al.*, 2009a: 88)

The following three strategies were selected for in-depth assessment by the project team.

Strategy 1: Green Blue Services¹ strategy

The region aims to keep scarce rural areas open, and enable farmers to continue managing the rural areas (Aalbers *et al.*, 2009a: 81) by rewarding farmers in cash for their improvements of the landscape, so-called agri-environmental payments in the form of local schemes. The Catalogue of Green Blue Services included in this strategy defines environmental services that are acceptable - in terms of EU State aid rules - for financial support by the government, and that are regulated by private law agreeing service delivery on land plots. The Green Blue Services strategy is part of formal regional policy. (Aalbers *et al.*, 2009a:78-83). A Green Fund is filled by municipalities in the region and pays for the environmental services delivered by farmers. E.g. the Green Fund Midden Delfland contains 9-12 million euro and the Farming for Nature Biesland polder 1.9 million euro (Aalbers *et al.*, 2009a:78). This possibility was instituted by a fund that was created by a number of municipalities from their revenues of housing projects. A local Farming for Nature association was initiated by an individual farmer, a volunteer conservationist and a research institute, and further supported by the regional authority and an area-based civil society group.

Current discourses that accompany the Green Blue Services approach are about Local production, historical landscapes and identity preservation, 'Cow in the Meadow',

¹ Green refers to green open space, blue to water.

organic farming, 'Farming for Nature'. 'The landscape invites you' and 'Valuable Polders' are other discourses. Discourses and coalitions are tied to specific areas as 'raison d'être' (Aalbers *et al.*, 2009a,78-85).

Performance

There is interest of both farmers and municipalities to draw from as well as to fill the green funds. The Green Blue Services strategy provides an alternative to land purchase because farmers gain extra income, but the strategy needs complementary measures, like land banking to make a difference. The farmers' organization in the region is also aiming at agricultural assessment of land to give priority to farmers to buy. The Green Blue Services strategy is tailored to farmers' entrepreneurship. Farmers negotiate the design, measures and payment level. The positive aspects include that the Green Blue Services' strategy can contribute to agriculture, but also to preserving biodiversity and tourism and recreational development. It employs synergy. However, zoning or land purchase still might be more effective. The strategy suffers from three problems: economic feasibility is still under study, monitoring is hard and expensive. European State Aid procedures are discouraging the further development of the green blue services approach.

Strategy 2: To develop urban commitment to green cultural landscapes

This strategy is developed to contribute to commitment of urban dwellers for preservation of cultural landscapes by stressing the importance of the cultural heritage for the identity of the region. Projects being pursued within this strategy include the Green Rings for cycling through green open spaces to provide physical and mental links between the city and the countryside, and 'The Hague School Outdoors' linking back to paintings of landscapes of the early 20th century. The basic idea is linking Green Rings via historical waterworks and landscapes and other nature- and water-related structures. 'The Hague School outdoors' was a project initiated spontaneously in the sideline of the PLUREL research. Regulations of the external funding organizations to request funding at least 4 months before starting the initiative rendered the acquisition of funds for the outdoor exhibition difficult. One of the ten billboards with the Hague School paintings were paid by the region as take off. Combining with different actors, employing their respective funds (INTERREG, the Hague city, private parties) was taking some effort. Cooperation to realize this project occurred with the National Service on Rural Areas (DLG), Alterra, Van Hall Larenstein, LEI, Museums, Funding Bodies, Municipality of the Hague, Parties developing tourist trails, and the Ministry of Agriculture, Nature and Food Quality. The discourse behind the projects is the identity of the Hague as place to be. The urbanite should fight for the rural areas, for 'The city of The Hague in a green region'. The Green Rings should be an appealing concept, clearly linked to the regional authority, promoting its green open spaces and enabling cycling urbanites to enjoy the green region. City dwellers and expatriates are said to be interested in culture. Identity information is provided via the international website of the city of the Hague to promote a mental connection to the green open spaces of the region (Aalbers *et al.*, 2009a:88-91).

Performance

The strategy raises awareness among citizens, university scholars and various authorities. A study revealed that the paintings were appreciated by residents and 46% of residents (strongly) agreed that the paintings help to discuss landscapes. But appreciation was more by older than by younger residents (Aalbers *et al.*, 2009b: 22-23) What group, time or function is included in the identity concept and what is ignored, are issues decisive for inclusion of interests. Tourist offices are interested in the cultural dimension of the approach (the paintings) but not in the landscape dimension.

Strategy 3: Increasing local political support for investment in green open space for expatriates via the motive of international competitiveness,

This strategy concerns linking green open space to issue of major regional economic importance: the internationally competitive position of The Hague and its wider region. A

network for the promotion of green open spaces is developed to stimulate financial investments to this end. The strategy targets citizens as both users and advocates of the urban fringe (Aalbers *et al.*, 2009a: 99-109). Green open areas that have the support of the urban population are redeveloped. Links with other parties, especially with the motives of other parties are made for fund raising, leading to coalitions between the international institutions and business, Delft municipality (international Technical University), other municipalities in the region. They share the discourse of attractiveness of the Hague region to international civil servants and knowledge workers (Aalbers *et al.*, 2009a:100-104).

Green open space including the sea, is promoted as important factor to the quality of the international settlement climate. The promotional term of the Hague as a 'Green Metropolis by the seaside' is adopted. It promotes the region with its central city of the Hague as City of Peace, Justice and Safety, and assumes that the International Zone that caters for the quality of life should attract expatriates. Further, it raises support from the public for those green areas that are physically interesting, not just any green area. Green peri-urban areas are seen as recreational areas and should be adapted to the needs of the city dweller.

Performance

The use of the attractiveness of landscape to expatriates, as economic motive for governors in the regional board seems to work. As long as the green open space provided to expatriates is also available to other residents the strategy it is not expected to lead to exclusion of groups. The 'green wishes' of expatriates are not importantly different from those of other groups (Veer *et al.*, 2010). Expatriates do find neighbourhoods with peaceful landscaping, quiet green streets to live in and natural areas in their residential environment very important (Veer *et al.* in Aalbers *et al.*, 2009a: 102)

Main conclusions on the Hague Region

The Hague region is one of the most urbanized regions in the Netherlands, home to about 1 million people, and increasingly challenged by climate change since most of the area is below sea level. The former quite strong protection of green areas in the Hague Region, supported by the state, is undergoing rapid change due to increasing urban sprawl and rising land prices. In particular, the open 'grass' areas are most susceptible to the development of new housing, various infrastructure projects and recreational facilities. In terms of governance patterns, we may discern parallel bottom-up and top-down developments. While the Farming for Nature project illustrates a bottom-up initiative starting on a voluntary basis and subsequently adopted by national, municipal and regional authorities, the Midden Delfland is a product of the former buffer zone policy driven by the state but gradually receiving support by a variety of public and private stakeholders. Public-private partnerships dominate the Green Rings project, while for example the 'Meadowlands Platform' is driven by a coalition between municipal officers and NGO representatives. The possibilities of financing those initiatives constitute a major constraint to furthering the processes. There is also a growing fatigue among many stakeholders who feel that too little concrete results emanate from those extensive public consultation processes. The strategy for green open spaces is heavily dependent on investment capital from outside the region itself.

Koper region, Slovenia

(Perpar, 2009; 2010)



Fig. 3
Functional Urban Region of Koper, pink area at the left side is Koper city.
(map by DSA, Rotterdam)



Land use developments and strategic issues in the region

The Koper region includes the entire coastal harbour and industry region of Slovenia (Fig. 2.1) and is situated in the Mediterranean climatic zone. Koper has 2,000 years of history behind it and during that time has hosted various peoples and masters. After the Second World War Koper became the most economic centre of the Slovenian coast. With Slovenian independence in 1991, Koper became the only commercial port and an important industrial centre of Slovenia. Koper is today the sixth largest town in Slovenia and second in terms of per capita GDP. (Perpar *et al.*, 6). The harbour is very important for the region and together with tourism boosts the regional economy. Its location on the coast provides opportunities for recreation with a well preserved cultural landscape. So the coastal zone is rapidly developing with the harbour industry and tourism activities. There is a real tendency to construct private individual houses and larger housing and commercial developments on the best agricultural land area. Daily migration to the coastal working zones is increasing.

The intense development of Koper and its coastal zone caused strong demographic changes in the hinterland. Dragonja Valley is depopulating and as a consequence there is a high and growing proportion of abandoned agricultural land in the hinterland. Koper region exhibits a bipolar or dual mode development: in rural areas agricultural activities are reduced, with a high percentage of the rural population employed elsewhere, causing intense daily commuting. The rural economic basis is thus depleted and new working places tend to occur in the coastal belt. Due to the attractiveness for its port activities and tourism construction is economically interesting and housing pressure is high. (Perpar, 2009a:8). Part of it results from immigration from abroad. Now, it is estimated that between 2005 and 2015 the population of Koper municipality will grow from 49.000 to 55.000 inhabitants (Municipality Spatial Plan-draft, 2008, in Perpar, 2008:23), roughly corresponding to 1% annual growth. For later, it is expected to decrease by 2.4% until 2020. The actual growth mainly results from a positive saldo between emigration and immigration. Natural population increase in Koper municipality is negative. The old city centre is characterized by an ageing population.

The population shrinkage in the rural hinterland occurred until some years ago. Today the situation has stabilized in rural settlements, due to immigration of population from other parts of the municipality and beyond, as well as from the coast. This is caused by lower prices of land in the hinterland, better accessibility by car and some increased attraction towards a more "green" living environment. The new population increase is however not connected with the traditional settlement and rural functions, which means

that agriculture is still in decline in these areas, the cultural landscape is deteriorating and new environmental and spatial pressures are introduced.

Seven per cent (data for 2001) of Koper municipality is under construction due to rising number of households, decreasing household size, and second 'weekend' residences in specific areas. One third of the population lives in the urban, half in the peri-urban and 15% in the rural area of Koper municipality.

The abandonment of the agricultural hinterland has led to dramatic changes of landscape character and biodiversity. Agriculture in the peri-urban areas of Koper has become multifunctional. In the rural area, agriculture for traditional produce (traditional wines, smoked ham, goat's cheese, truffles) is combined with crafts and ancient traditions. Agriculture is under pressure because the best agricultural lands are also situated where pressure from building, infrastructure, industrial zones and craft zones is highest.

Among the important issues in the region are the preservation of valuable historical housing in both the urban and rural landscapes and their integration in the spatial development of the urban and peri-urban area. Also, the preservation of best quality soils for farming - in a national context of scarce prime agricultural land - is a major challenge.

The integration of building is a major spatial planning concern for Koper municipality.

The peri-urban 'semi-circular belt' is simultaneously important for housing, for infrastructure development, industry and recreation.

Koper has several important ecological areas. Natura 2000 areas cover 44% of the municipal territory! However, there is less than 20% of natural coastline left of the 17 km coast line due to salt production (now partly abandoned, 40% is still in function), tourist development and the expansion of the port. The tourist pressure reduces the biodiversity potential of the natural coast. Fragmented remnants of ecosystems without genetic, spatial and ecological potential for movement to new locations are particularly endangered. Forests on abandoned land are increasing.

General government structure and policy arrangement

Rules of the game

The region of Koper coincides with the territory of the Municipality of Koper and falls under its jurisdiction. Koper is part of the Obalno-Kraska region (in English the 'Literal Karst Region'). The local Office for Spatial Planning and the Environment is responsible for planning for the urban region at the municipal level. Planning bureaus can develop plans under the guidance of the Office. The municipality is the only authority that has the jurisdiction to accept and propose plans. At the level of the municipality and within the confines of its territory, the Municipality Spatial Development Strategy – that still has to be adopted - will determine long-term goals of spatial development in the territory. Slovenia has not yet formally established the regional administrative level. Spatial planning in Slovenia is divided between national and local level, while the role of the regional level is contested and has thus not yet been established. Decisions for regional councils are not taken due to new elections in 2008 (2009, 58). Spatial planning documents at the regional level are not obligatory but optional under new spatial planning legislation.

Since 1984 the rules about land use in Slovenia are clearly defined and through a local spatial plan on municipality level, defined in the legislation as well. But these rules have been subject of different changes, which means that they have not been regulated enough and very often are under political rather than professional pressure. Professional solutions do not always play the main role. Political, financial power and interests are also important. (2009, 8). Still today, control mechanisms and enforcement of regulations remain weak. The new Spatial Planning Act from 2007 aims to enable harmonized development taking all aspects of sustainable development into account. It requires the municipality to adopt a strategy of local spatial plan for this purpose, in line with national strategic policies and confirmed by the Ministry of Government, and to guide all further development decisions. Consultation with citizens, NGOs and other land users is required, and the plan must be decided upon in the municipal council. Local communities existed that were elected. The elected community councillors chose a president among

themselves, who also became member of the municipal council (2009, 59). In some areas this nested government level still exists. They then decide on infrastructure, on building. (2010)

Before 1991 the spatial plan had to be decided by all sectors together. Social planning existed and had a spatial aspect. Now the spatial plan is decided by the spatial planner, and next by the Council.

General guidelines on how the new spatial legislation should be implemented are still not in place and every new government in Slovenia in recent years has changed the procedures. As a result, the new spatial development strategy for the municipality of Koper is still a proposal and not yet adopted. The Spatial Planning Directorate coordinates organisational units under the Ministry of the Environment and Spatial Planning as well as with other ministries and across regional and local level, including municipalities. Although the municipalities are basically self-governing under the Local Government Act, national bodies control the consistency with national law. For instance, the role of the Ministry of Agriculture, Forestry and Food is to approve any land use change from 1st quality agricultural land to other land use purpose. Developments are on the way (see strategy 2 below).

Financial and land resources

Agriculture in Koper region suffers from the increased international competition following international global market and EU policies, while at the same time many farms are small and fragmented with unsolved land ownership and an ageing farming population. Natura 2000 protection scheme covers as much as 44 % of the municipal territory. Slovenia introduced agri-environmental subsidies and measures following the European approach starting in 2001, which have been particularly implemented among small and medium size farms.

Policy coalition development

Port and national authorities share the interest of increasing the port area and its capacity, which also implies spatial needs. Also, the development of tourism in the area and urban sprawl outside of the city creates the need for new infrastructure. As a complement to these investments, the port of Koper supported the restoration of Škocjanski zatok Nature Reserve.

Several environmental groups are active in the Koper area and embrace both environmental protection and social aspects of rural development. For example, DOPPS – Bird Life initiated the restoration and now manages the Škocjanski zatok Nature Reserve, and the Pangea Association initiated a process of village revitalisation in Šmarje. The government Institute of the Republic of Slovenia for Nature Conservation, with the mandate to attend to the most valuable natural areas in the country, has had difficulty in convincing politicians of the need to protect environmentally important areas.

Private land owners include farmers, non-farmers and companies. Some companies from other parts of Slovenia are buying agricultural land on good sea view locations with the prospect of future land use change into housing areas. Closely connected to this land speculation is the presence of private construction companies who predict future expansion needs for holiday apartments and residential areas. These private interests with financial power have generally good connections with the political elite and have lobbying experience.

Policy discourses

Agriculture in the Koper municipality is important and plays a multi-functional role including an 'identity' in terms of landscape attractiveness, ecosystems functions and maintenance of local agricultural products. The character of the Koper area is still dominated by a varied and relatively well preserved nature. The predominant national interest concerning the development of Slovenia was and remains the development of the Koper port, urbanisation and industrialisation of the region and the development of the tourist industry. All this has led to a modernization of the old town of Koper, with high buildings next to the medieval town, and suburban expansion of housing and industry. Marchlands were drained and encroachment into agricultural areas included the

expansion of Koper harbour and a railway station. Oil and gas terminals were built beside a nearby forested hillside.

Supported by activities by environmental NGOs and by EU environmental policy, discourses on environmental protection are emerging and environmental awareness is rising among the local population. Still, however, those remain within closed sectoral (agri/environmental) boundaries, whereas development interests pursue a very different discursive path of provision of economic prosperity through infrastructure and housing expansion. Social issues related to sustainability are least emphasized in the discourses as well as the outcomes of strategies relating to the peri-urban areas.

The following three strategies were assessed.

Strategy 1 Green and recreational areas to increase quality of living

This municipal policy aims at the enhancement of green and recreational areas in the urban areas and in the hinterland. Landownership in the rural hinterland areas is mainly with the farmers, house owners and the Agricultural and Forestry Fund. 44% of Koper municipality is Nature 2000 area. The municipal strategy to promote tourism and recreation in the rural areas is expected to contribute to the incomes of the rural population. The development of green structure in residential areas where part of the land is owned by the municipality is expected to contribute to quality of life in the urban areas. There are no coalitions involved in this strategy. The Municipality of Koper is the main actor involved in the development of the idea. Small farming for biodiversity and green structure in residential areas are the main discursive ingredients. A spatial concept with semi-circular belts and polycentric development to spread pressures and development opportunities supports this strategy.

Natural protected area Skocjanski zatok in the entrance of the town is being further developed in order to add recreational value of the area for Koper residents to the initially aimed natural value. BirdLife NGO is an important actor in the development of Skocjanski zatok area, in cooperation with the port and the municipality.

Performance

This strategy contributes to preserving high biodiversity on traditional farming land. It contributes to preserve the regional farming related identity of the region, preserving culturally specific foods and products. This strategy is also part of the wider policy for protection of best agricultural land. However, there is contested support for this strategy among local politicians. This is attributed to weak enforcement guidelines for nature protection coupled with considerable financial power of exploitative interests. The politicians in the municipal council are thus under pressure to reconcile social/cultural and environmental interests with those of commercial actors.

Strategy 2: Land use efficiency and protection of the best agricultural land

This strategy combines spatial planning with a new procedure for classification of the best agricultural land. There is cooperation between University of Ljubljana, Ministry of Agriculture and Municipality of Koper to develop the new legislation and procedure. This improved procedure will protect best agricultural land and will be embedded in the land use plan. Classification will enable insight in different qualities of agricultural land. The strategy is based on the knowledge of the soil quality (GIS data). Knowledge, in addition to legislation is a main source of influence used by the coalition to influence decision making in favour of the preservation of best agricultural land. The new procedure will allow inter-sector communication which used to be impossible since information was strictly preserved to the Ministry of Agriculture. This is not the case any longer since the data is now publically available. Agriculture, environmental protection and forestry will harmonize their spatial requirements in advance – at expert level of decision-making. This new procedure will enable to develop support for the new procedure.

The past procedure provided legal and serious illegal finances of the investors. A new financial system will be established by Ministries of Agriculture and of Environment and Spatial Planning to support the new procedure. Classification will enable more precise insight in the different qualities of agricultural land and hence enable to develop support for the new procedure. Land use efficiency is the main objective and this could be promoted in the form of a discourse but this is not happening.

Performance

The national legislative dimension of the strategy is expected to provide improved land use efficiency, in particular in relation to the preservation of prime agricultural land. A strengthening effect on agriculture and empowerment of farmers is expected. The strategy is incorporated into municipality spatial plans which the Ministry of Agriculture has to approve or reject. The new approach is expected to be more effective and resilient, because it is embedded in spatial planning, and because the inter-sectoral communication.

A pilot case study of this strategy will be implemented in the Municipality of Koper. This idea is however not yet known enough among the general public.

Strategy 3 Implementation of rural development measures from the Rural Development Plan for Slovenia 2007-2013

This strategy is not connected with the land use plan. According to the national and EU rules the implementation can result from farmers initiative to join to the programme, an initiative of the municipality or a village in case of measures to renovate the village. Apart from some single farmer initiatives, the Municipal Office for the Environment and Spatial Planning seems the sole actor engaged in development and promotion of the Rural Development Plan for Slovenia within the region. Farmers are interested in the incentives. Farm extension services play an important role, as does the Agency for the Agricultural Markets and Rural Development as financing agency. For rural development in Koper region it is important to consider that 44% of Koper area is Nature 2000 area. For these areas financial incentives come from the EU and partly from the national budget (15 to 50% of participation in the expenses) for measures which are in accordance with the Rural Development Plan.

There are some actors that promote local agriculture such as the Ministry of Agriculture or local companies, as Agraria – for vegetables - Vina Koper – for vine – and private associations such as the Association of olive producers.

Performance:

In ecological terms the approach has benefits in the form of increased biodiversity and better living condition. The green fingers in the future urban region of Koper are expected to contribute to a higher extend of availability of green open space for recreation to peri-urban residents. Polycentric development is expected to combine social, environmental with the predominantly economically based discourse of those in power, i.e. mayors, politicians. The Nature 2000 status is expected to preserve important parts of the Rural areas for nature.

Spatial concepts

The ‘three half rings’ spatial concept and ‘polycentric development’ concept are used as Spatial Development models for Koper region relating the urban and rural areas via centres and infrastructure and zoning industrial, residential, recreational and agricultural areas. The semicircular belts should divert development centers away from the congested coastal belt. (2009, 21) They are intended to bundle decentralisation into peri-urban areas and rural areas, contributing to a polycentric development. Construction in the city should be rounded off. Renovations and reconstruction are to take place both in the city and the rural areas. Radial infrastructure lines are connecting the hinterland with the city.

But these models seems not (yet) actively promoted via a discourse that can unite actors into a coalition to support the plan. They still have to be approved by the Municipal Council.

Private construction companies have an influence via politics and lobbying on the spatial development of the region and they almost never work directly. Private investors and companies can propose initiatives for new spatial intervention as well.

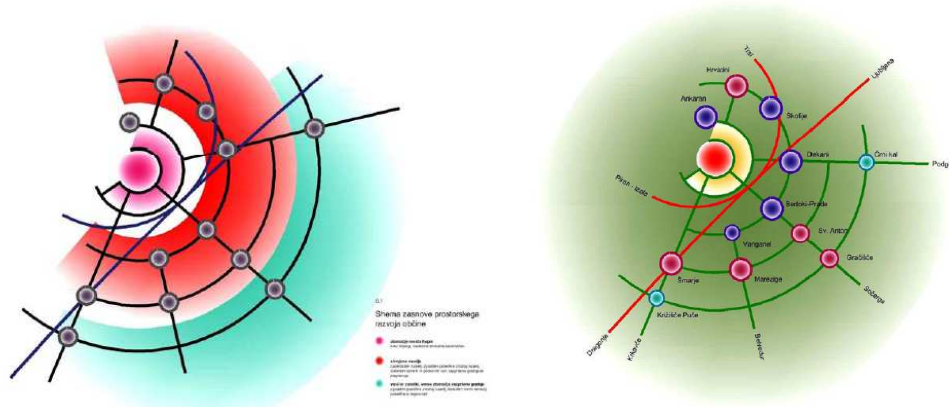


Fig. 4
Spatial design for the development of the Municipality of Koper (left)
Settlements network in the Municipality of Koper (right) (from Perpar, 2008)

Main conclusions on Koper Region

Koper has undergone major shifts in land use in recent years. According to the assessment made by stakeholders, the predominance of economic interests to further develop the port area and provide for economic development remains largely unchallenged, even though some growing awareness is discerned on the value of protecting the natural coastline and its remaining natural ecosystems. In the future, the population projection in Koper is predicted to put most pressure on the expansion of housing in the peri-urban area through increased immigration from abroad as well as from other parts of Slovenia.

There is growing bipolarity of economic development: new work in coastal belt, while in hinterland reduction agricultural activities, impoverished rural economy basis and demographic risk occur, and there's a high percentage of commuters. (Perpar, 2009:25) There's some integration between strategies in terms of substance/land use objectives. But it is weak in terms of policy means: no coalitions or discourses used as means to create (public) support and to influence decision making.

Concerning the steering of these developments in the urban fringe into more sustainable directions: professional solutions do not always play the main role, but political, financial power and interests are as important. (Perpar, 2009:8). Since the changes in spatial planning after 1991, the spatial plan is now being developed by the professional spatial planner instead of between sectors. This has reduced integral planning via the spatial plan and reduced inclusion of social aspects into planning.

Complementarity does exist between the three studied strategies in terms of substance/land use objectives. But their integration is not supported by influential policy means: no coalitions or discourses are used neither as means to create (public) support nor to influence decision making. This can limit the potential impact of the strategies. The green structure development in the future urban region of Koper is expected to contribute to a higher extent of availability of green open space for recreation to peri-urban residents. Polycentric development is expected to combine social and environmental development with the predominantly economically based discourse of those in power. The lobbying and political influence of investors seems a risk to land use

efficiency. The Nature 2000 status is expected to protect important parts of the rural areas for nature.

Leipzig-Halle Region, Germany

(Sinn *et al.*, 2008; Bauer, 2010)

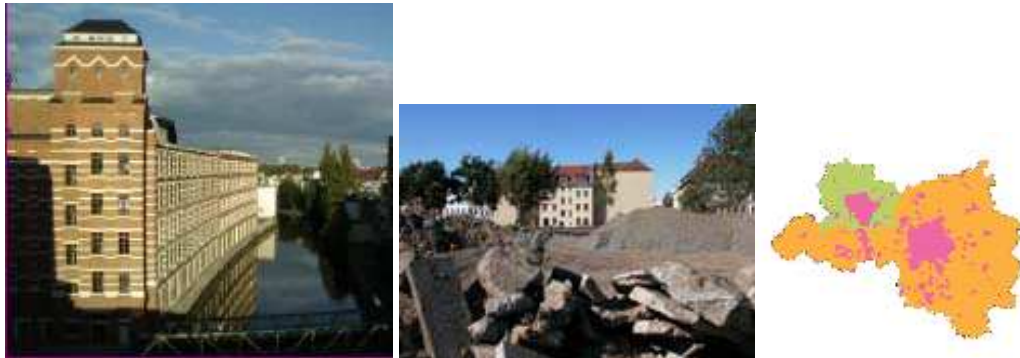


Fig. 5
Leipzig-Halle FUR land use map at the right. The largest pink spot is Leipzig. The smaller in the green area is Halle, in Saxony state.
(map by DSA, Rotterdam)

Land use developments and strategic issues in the region

The City of Leipzig (1989: 530.000 inhabitants; 2005: 450.000 inhabitants, 2010: 511.000), is an urban centre challenged by shrinkage due to outmigration and decline in the urban fringe. Leipzig's surroundings belong to the most productive agricultural areas in Germany and are faced since 1990 with a fundamental change of the former large-scale industrial agriculture into the market economy and agrarian policy of the EU. Although the population has diminished over the last decades, in spatial terms the conurbation has increased. It is a polycentric region. Green areas of medieval, renaissance and baroque phase still part of urban greenery these days (Sinn *et al.*, 2008:10).

The onset of post-socialist transformation beginning in 1989 and the assignment in 1992 of Leipzig region as one of the 12 urban development centres in former Eastern Germany by the federal government of German, ushered in a period of heavy urban sprawl, with 'countless' shopping malls, enterprise zones and residential 'parks' spreading – in this order – on the city's outskirts and into the suburban municipalities. (Nuissl and Rink, 2005). Low birth rates, industrial decline, out-migration, and residential vacancies, however, contradicted the expectations linked to these investments, which eventually led to a huge oversupply on the markets of housing, office space and developed land in general. Since the late 1990s urban sprawl around Leipzig has abated considerably (Herfert, 1996; Nuissl and Rink, 2005).

Monitoring data implicate high dynamics of suburban growth (single and semi-detached house settlements, new 'housing parks') with adjacent partly over-dimensional construction commercial activities at the urban fringe and a simultaneous increase of depopulation and related shrinkage, residential vacancy, perforation followed by demolition in the inner city areas has to be acknowledged (Lütke-Daldrup 2001). The shrinkage phenomenon and related residential vacancies (55,000 vacant flats 2005) both are strongly related to economic variables such as low investment rates, high unemployment rates, reduced family income or jobless growth as well as to low birth rates, an aging society and out-migration especially in the inner-city and the prefab housing estates. Within the core cities, shrinkage and growth occur in vicinity today. The rural hinterland is also faced with loss of population.

Development in spite of population shrinkage can further residential vacancy, test the public infrastructure and service system to its limits and increase land 'consumption'. (Bauer *et al.*, 2010, 5).

Urban sprawl causes need for increased investments in the transportation system and public service provision, at the same time as it creates reduction of the Leipzig tax base (leaving part of the city vacant) and pressure on development in the floodplains.

General Government structure and policy arrangement

Rules of the game

The main regional planning authorities of the region of Leipzig-Halle are the regional planning associations, which are responsible for the steering of land use transition and development processes in the area. In the Saxony, these are controlled by the federal state. There have been established numerous regional governance structures. Overarching regulations (planning law) with special emphasis on integrated development of urban regions exist since 2007, issued by the National Government. The State produces its own planning and building laws and a Spatial development plan (Sinn *et al.*, 2008:23, 46) for the State. Between Federal level and States the Conference of Ministers on spatial planning is installed to harmonize concepts and standards, including those on sustainable development. Between the State of Saxony and Leipzig City an extra 'planning region' level is installed, namely the Leipzig-Halle region. Some of the development in the peri-urban area took place at a time when the new spatial planning system was not yet fully functioning. In the Leipzig-Halle region there is self government of communities, they have full responsibilities for preparatory land use plans and development plans and renewal.

In the Leipzig-Halle region, support to the adaptation of regions to demographic change and local authority reform is provided by five regional development committees, who also access funding for regional approaches to cope with population decline. The regional development committees prepare regional development concepts (REK) with public and stakeholder participation (including business) in decision-making and implementation. The REK involves a holistic analysis of regional strengths and weaknesses, and requires voluntary commitment from the participants for implementing the measures. This is a typical governance process with no statutory support, and its outcome depends largely on the availability of full-time professional management. Vague or conflicting measures tend not to become implemented, while there can be bias towards those measures that can get funding from the Saxon region (Bauer *et al.*, 2010).

Financial and land resources

The REK process is financed by FR-Regio, a programme for regional development by the Saxon state. The REK outputs are often vague and ill-defined and depend heavily on the possibility of funding. Likewise, even though there is formal statutory support, the green corridor strategy is dependent on financial support to balance the potential gains for industrial/housing exploitation by developers.

Policy coalition development

Two positions are brought forward by different policy coalitions: Leipzig civil servants, planners and public service providers advocate that virtually no further residential and industrial/commercial development should take place in the urban fringe, while civil servants in the peri-urban area and regional planners speak for moderate residential, industrial and commercial development in this area. The first coalition argues in favour of task-sharing between the Leipzig city, Halle (another town in the area) and the fringe, where housing should be kept to Leipzig and Halle and recreation, tourism and agriculture be retained or developed in the fringe. The latter coalition is concerned about future financial viability of service provision in the urban fringe (Sinn *et al.*, 2008).

Policy discourses

In the REK, the discourse is about balancing different regional development interests. As noted, two main discourses are prevalent which may be explained by different actor (economic) interests: the city against the urban fringe. All are in need of a firm tax base, and the preference where industrial and housing development should take place is thus dependent on the (geographical) implications on tax revenues.

The following three strategies were selected and assessed by the evaluation team.

Strategy 1 The Green Corridors according to the Regional Plan for Western Saxony

This strategy concerns linking open spaces and unsealed surfaces in the environs of the city to urban green spaces. The corridors are included in Saxony level - state - spatial plans. The statutes by the region of West Saxony oblige to respect the green corridor in local planning. Authorization of the plan is executed firstly by the regional planning association's GA and then by the upper planning department of the Ministry of the Interior of Saxony (Bauer, 2010, 10). The plan provides the framework for further plans at lower levels.

Financial support is lacking. This could lead to conflicts for municipalities, as the Green Corridors are detriment to funding for local economic development but do not come with a budget of their own (Bauer et al., 2010:13). Regional development funding is only available indirectly through the Green Ring, that finances walking and cycling paths and education.

There is a regional association in the form of a coalition of mayors, district administrators and other authorities. Its elected planning board prepares (Sinn *et al.*, 2008:41) the plans for the general assembly of the Association to decide. Public involvement occurs only at the occasion of presentation of the draft plan twice, before it becomes statutory within the Regional Plan of Western Saxony.

The combination with the floodplain forests highly valued, contributes to branding of the Green Corridors and awareness raising (Bauer, 2010:12). The Green Corridors concept is easily understandable and convincing.

Performance

Investors seem to be capable of developing pressure against Green Corridors (Bauer, 2010:10). For example, building permit has been granted in the Northern Leipzig Green Corridor. Nevertheless the strategy contributes to preserving valuable landscape identity and natural habitats and agricultural land uses. Costs and benefits of the strategy are unbalanced between the city and its environs: while everyone profits from attractive surroundings, only the development options of peri-urban communities are limited. The financial support of Green Corridors through regional development funding is not sufficient to render other industrial/commercial investors unattractive for municipalities (Bauer, 2010:14). Especially the shrinkage context favours investments in urban developments because local authorities pursue to compete for residents and business with other municipalities.

Strategy 2: Inter-municipal cooperation for Parthe Floodplain protection

This strategy is developed by an inter-municipal coalition that integrates the preservation of Parthe Floodplain into the preparatory land use plans of three local authorities. It is decided upon by the three concerned municipal councils. The Parthenau agreements are binding for the formal members, including these three municipal councils. Expert civil servants from the three concerned municipalities integrate the protection goals into the preparatory land use plans. Landowners like farmers are involved in the coalition as well. Their resources are combined - project wise - with funding programmes. Financial resources are also drawn from Green Ring finances by the city of Leipzig. Cooperation also occurs with farmers, tourist association, local inns, German Nature NGO, and other nearby municipalities (Bauer *et al.*, 2010:21; Sinn *et al.*, 2008:44).

'Parthe Floodplain protection' and 'Zwischengrün' are main discourses. These are combined with art exhibitions along the river to link parks and green spaces. For instance, there is a permanent exhibition on the floodplain's flora and fauna, guided excursions for schools, guided walks on ornithology and herbology, as well as tips and recommendations for individual excursions.

There is a clear spatial entity: the Parthe floodplain, which is synchronised with Green Ring Leipzig. The strategy's aims are tangible: constructing cycling paths, etc. Participating local authorities are constantly reminded of the importance of natural and landscape values for quality of life and as soft location factor for investors (Bauer *et al.*, 2010:23)

Performance

The Parthe floodplain cooperation depends on collaborative funding by its member municipalities, and has succeeded in achieving its own-set goals by creating trust and endurance over a long period of time. Its success relies on convincing its members of the benefits of floodplain protection and obtaining their political and financial support for such measures (Bauer *et al.*, 2010, 27). The strategy creates synergies in terms of sharing qualified personnel and providing services in the field of landscape conservation and management, project management and application for funding. The recreational value of area is enhanced, tourists/recreationists interest and landowning farmers are integrated resp. involved in the approach. Generally, commercial development in the floodplains is not successfully prevented. The combination of the different policy dimensions makes the strategy successful for the time being, while its resilience in long term is not clear and depends on the effectiveness of the strategy in the eyes of the participants. Negotiations on division of costs between the Local authorities are important for its legitimacy. The strategy's aims are tangible and therefore quite easy so control (e.g. the construction of cycling paths and bridges). (Bauer, 2010, 23).

Strategy 3 The Green Ring Leipzig Regional Development Concept

The Green Ring strategy covers diverse landscapes, including forests, urban and fringe green spaces, brownfields, farmland, rivers and floodplains. It focuses on conservation and management of the cultural landscape, environmental education, development of infrastructure for local recreation and development of environmental technology. There is an inter-communal land balance pool project using a legal obligation for compensation, to obtain legal status for Green ring areas in compensation for change of green open space into urban land uses elsewhere in the member municipalities. Green Ring Leipzig is an example of the *Regional Entwicklung Konzepte* (REK) – regional development concepts - that have become frequent in German spatial planning (Wiechmann/Beier, 2004, in Bauer, 2010,16). Use of the REK formula enables participating small municipalities to acquire for funding. Funding rules of Saxony require the existence of a REK.

Initially the strategy implied restoration of fallow open-cast mines and industrial estates. Land ownership was less problematic or land prices low since it is derelict land. The inter-communal land balance pool is one of the important 24 projects that constitute the Green Ring project.

The Leipzig Department of urban green spaces and water-bodies is the main office behind the strategy. Knowledge and expertise is shared between municipalities and other members of the initiative. Mayors of the 14 participating municipalities gather during 'city-surrounding-conference' semi-annually, with 2 rural districts, NGOs, associations, private companies and single citizens. 8 working groups are established on various environment themes (Sinn *et al.*, 2008:37). The identity of participating urban municipalities (Sinn *et al.*, 2008:36) is an important concern for the participants. Management of cultural landscape and education activities contributes to support from the coalition of participating municipalities and the public. Green Ring cooperation encourages residents to get to know natural and open landscape areas of the Green Ring. (Bauer, 2010:18). The focus of the strategy is fairly clear which often is not the case for REK. (Bauer 2010, 17),

Performance

While REK are a prerequisite for applying for regional funding, there is no funding guarantee for the Green Ring. Whereas their inclusion in land use plans strengthens the status of Green Ring, the absence of funds weakens the impact of the Green Ring strategy. Agricultural land is preserved (Bauer, 2010,17) being part of cultural rural landscapes. Forests, floodplains and rivers and habitats are at least temporarily preserved from urban growth while long term preservation is uncertain.

The Green Ring strategy contributes to quality of life for residents. The professional full time management of this REK contributes to its positive impact. This is not always the case for other REK. The Green Ring is well suited for involving the public and gaining commitment for landscape protection, even though this could be improved. Long term support by the public to the Green Ring is unclear. This is a potential risk to the resilience of the strategy. Differences in level of commitment among members (Bauer 2010, 18) and scarcity of financial means entail a risk to the performance of the Green Ring strategy.

Main conclusions on Leipzig-Halle region

The Leipzig case study clearly shows the discrepancy between rhetorical policy statements in regional development plans advocating the protection of green areas in the urban fringe and practical hindrances in terms of financial constraints and conflicting views on where development of housing and industry should best take place. Current taxation policy restricts the possibilities for peri-urban areas to support extensive protection of green areas, and any protection that happens is indeed ascribed to the availability of government subsidies.

Greater Manchester Region, England

(Ravetz, 2008 and 2009)

Land use developments and strategic issues in the region

The Manchester city-region is surrounded on the north and east by low hills with former industrial activity: and on the south and west by farmland and mixed metropolitan peri-urban areas. The location is at a national crossroads, halfway between Scotland and London, and is also the gateway to the ‘peripheral’ North West region, and attracts wealthy commuters and tourists. As one of the birthplaces of the industrial revolution, the Manchester City-Region suffered extreme levels of poverty and pollution, followed by 50 years of decline and restructuring. From the challenges of social exclusion, ill-health, obsolescence and dereliction, the ‘metropolitan’ core of the North West region is now re-inventing itself as a globalized hub for creative and knowledge-based industries in the ‘new urbanism’ mode (Katz *et al.*, 1994). The city-regional economy as a whole is diverse, but in gross value added per capita it lags behind by about 10%, and there are many structural economic problems with skills, entrepreneurship and innovation.

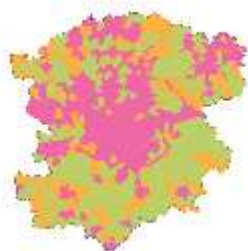


Fig.6
Land use in AGMA 10, Greater Manchester Functional Urban Region, urban area in pink (map by DSA, Rotterdam)

The peri-urban areas are the location of most urban infrastructure, with high levels of urban pressure, pollution and contamination. While many areas are being reclaimed for multi-functional leisure and amenity uses, there are major conflicts between conservation and the need for airports, motorway links and business parks. This will continue with the demographic shift towards older, smaller households: while current planning policy is to increase density, the pressures on housing in peri-urban areas will increase. Transport congestion is severe on the strategic network, and the divided management of public transport does not help.

Urbanisation and development in the peri-urban area of Manchester provide challenges in terms of social and economic cleavages, ageing population, landscape stress, farm decline, and general pressure for urban migration to the rural fringe. The urban expansion of the city of Manchester has been rapid throughout the 20th century. Even when the economy was shrinking, relocation to the peri-urban communities took place in the form of leisure-based and/or commuting towns. Current trends include a continuing process of metropol-ization of rural communities, bearing new social and cultural lifestyles and attitudes.

Planned dispersal of population goes combined with unplanned migration across and beyond the region (Ravetz 2008:25) and decimation of industry hollowed out urban area, resulting in numerous brown fields. The urban fringe shifts from farming to leisure industries, from natives to commuters and teleworkers and is nowadays dominated by motorways and other infrastructure (Ravetz, 2008:22). Traditional agriculture is most threatened and land abandonment occurs (Ravetz, 2009:20).

There are over 360 sites of biological interest, and 17 of special scientific interest most on derelict land. (2008, 33). Waste is being dumped in neighbouring counties, there are 620 closed waste disposal sites in region (Ravetz, 2008:24). Many areas suffer long term unemployment (20-40%). Local rivers, especially lower Mersey, are notoriously polluted and lifeless. Qualitative aspects obtain little attention: river valley policy areas are neglected and semi-derelict valleys, environmental improvement corridors and areas are disturbed and unpleasant landscapes. New 'agribusiness' areas have less amenity and ecological value than many areas of remains of former industry. (Ravetz, 2008:29-30)

Delocalized resource use in the region, except for sand and aggregates leads to weak urban rural productive links (Ravetz, 2008:31)

Amenity value of the rural fringe (read urban fringe, 2008, 42) is very high, and 250 organizations exist in the county to preserve it. (2008, 33)

General Government structure and policy arrangement

Rules of the game

Responsibility for planning is split between the Regional Spatial Strategy of the North West Regional Association of Local Authorities and the Local Development Frameworks of the ten Greater Manchester municipal authorities. The wider 'Manchester City-Region' has now been brought to the forefront by the UK government's inter-regional 'Northern Way' strategy, which is based on functional urban regions. The Manchester City-Region includes the 10 urban authorities above, plus a further 5 more rural authorities, of which the High Peak authority is in the adjacent region of the East Midlands.

The governance system of the Manchester City Region has undergone periodic changes: from the County of ten municipalities in 1974-1986 to ten independent municipalities with certain coordinated public services through the voluntary Association of Greater Manchester (GM) Authorities from then onwards. This association oversees emergency, transport waste and other services. The researchers of University of Manchester refer to the Association of Greater Manchester Authorities as the central unit of the wider rural-urban region. For the analysis of the peri-urban region also five additional authorities involved in the Manchester City Region Economic Development Forum and a further seven authorities covering adjacent South and West Pennine rural areas are relevant. This Greater Manchester Rural Urban region is depicted above.

Spatial planning has changed from regulative to enterprise-based approaches. The Green Belt policy which has provided strong control of development in the areas surrounding UK cities is being questioned in light of a more multi-functional ecosystems-based set of policies (Elson, 1993 quoted in Ravetz *et al*). Open land policy is dominated by the Green Belt which protects 47 % of the GM county area in principle (with the exemption of railways, electrical power lines, motorways, landfills, mineral extraction and large employment sites) excluding the Lake District National Park. Other local policies such as 'landscape value' and 'river valleys' aim at similar ends, but without the legal status of the Green Belt. Nevertheless, the Government itself damages the quality of the Green Belt by major road building. Economic development has been dominated by EU funding opportunities, including for high-tech innovation as well as social/community enterprises. Environmental policies in the form of low carbon and green infrastructure policy are emerging. The governance of the city-region is fragmented at many levels, and there is no single definition of the city-region in context. Even if UK spatial strategies and planning are relatively mature, they still face challenges of policy integration and public participation. In particular, there is over-reliance on spatial planning as a means to counteract the inequalities and polarizing effects of deregulation in a liberalised market economy. Still, however, Manchester has some of the most pioneering experiments in the UK in peri-urban policy and management.

Financial and land resources

In the urban fringe there is much vacant land, agriculture is marginal and agricultural land sometimes abandoned. Most sites of biological interest or special scientific interest are located on urban or derelict land forming unique habitats. The North West Development Agency has a sub-regional strategy with the Greater Manchester Economic Development Forum: this aims to transform the region through sustainable economic development into a competitive, high added value, knowledge based inclusive economy. It focuses on business productivity, sustainable employment, labour skills, access to work, and disadvantaged communities. The GM economy is in transition from former manufacturing to a mix of high tech and service industries. The airport and university axis provides a catalyst for investments and leisure is one of the fastest growing sectors. In the urban areas brownfields are numerous.

Policy coalition development

A multitude of rural and peri-urban policies and programmes exist, involving a range of principal agencies at multiple levels from the EU to the local community. National strategies for rural development exist alongside regional economic and spatial strategies, being implemented at regional level through the North West Development Agency and the North West Regional Assembly, among others, and providing partnerships between local authorities and the business and civic sectors. A new Regional Leaders Forum for England's northwest '4NW' has recently been created consisting of the five council leaders of the sub-regions together with seven representatives from the private, non-governmental sector. There is a multitude of particular initiatives ranging from community forests to urban fringe planning in river basins. However, current 'policy clusters' tend to be free-standing initiatives centred round particular issues, but missing out on synergies, co-ordination and integration of the different policies and programmes.

Policy discourses

The rural development discourse is centred on improving the competitiveness of the agricultural and forestry sectors, and diversifying the rural economy. Likewise, the dominant discourse in regional economic and spatial strategies is that of ensuring ongoing growth in the rural economy and diversifying the economic base of rural areas. Elements of natural resource protection and contribution to achieving a low carbon and well adapted region to climate change have also emerged but appear less prioritised compared to economic discourses. In parallel, a 'Green Infrastructure' discourse is gradually becoming recognized by the researcher, emphasizing regional parks for protection of natural and cultural heritage, ecological connectivity and tourism opportunities.

Strategy 1: Green belt policy

According to this policy it is legally prohibited to build inside designated Green Belt area and there is obligation to regenerate brown fields except for 'strategic deletions' (Ravetz, 2008, 2009:22). The green belt policy is connected to local, regional and national levels of planning (Ravetz, 2009:24)

There are no coalitions involved in the Green Belt policy, except for the strategic developments of economic interest. Then the major and other powerful actors are involved. Various development partnerships exist (Ravetz, 2009:22)

The Green Belt discourse is poor in terms of responding to needs: mere Containment is the term (Ravetz, 2008:30). There is little focus on the positive features of social, economic or environmental initiatives. Statement of principles includes: to check sprawl, prevent the growing together of towns; preserve the setting of historic towns; safeguard country side against encroaching; and assist urban regeneration. (Ravetz, 2009:22).

There is a general focus on housing development, employment development and maintenance of existing urban patterns and centres. This can mean that opportunities for more sustainable settlements are ruled out. (Ravetz, 2009:26)

Performance

The strategy restricts farm diversification, landscape maintenance and the rural economy in general (Ravetz, 2008:23). Social and economic impacts consist in leaping of urban development over the Green Belt, in the form of suburbanization by more affluent and mobile communities further out, in the Pennines and Cheshire plain, and leading to commuter flows. The largest houses are found in or adjacent the Green Belt (Ravetz, 2009:26). The containment also results in a risk of shifting urban pressures and development of large shopping schemes within historic centres. (Ravetz, 2009:25). The regime helps to support property value increases for wealthy households who are already on the urban fringe (Ravetz, 2009:13). This leads to displacement of local people and local business (Ravetz, 2009:16).

Still, there is speculation on the possibility of land price rises in relation to expected future zoning as building land. Economic motives are commonly excepted from rules, since a hospital, power stations and motorways are located in the belt. The Green Belt does not strengthen the unique qualities of the area. (Ravetz, 2009:56). It merely contains growth. (Ravetz, 2009:8). The fragmented management of agriculture, land tenure, highways and leisure hinders practice (Ravetz, 2008:23,). There is need for diversification of landscape types and development possibilities. The green belt forms a barrier to linking urban with rural (Ravetz, 2009:24).

However, river valley initiatives and Special landscape areas within the Green Belt are successful, aiming at landscape quality, amenity, aesthetic values, in contrast to green belt. They seem important complementary actions to mere containment by the Green Belt policy.

Strategy 2 Local economic and community development

There is no special recognition or policy framework for the peri-urban areas. A general purpose is local and rural development but a discourse that unifies and orientates efforts, leading to synergy does not exist. Instead, different discourses exist alongside: supporting enterprise, social justice for all, providing access, services and opportunities for all rural people, enhancing countryside values, sustainable farming and food (Ravetz, 2008:35). This 'strategy' (it is not a strategy according to the agreed research definition) builds upon a combination of LEADER, the European Fund for Agricultural and Rural Development (EARD), and the Regional Development Program for England (RDPE). The RDPE's limited funds do not extend to many peri-urban areas. There is fragmentation of policies, specific for housing, transport, business, farming, tourism, and conservation. Pennine Prospects, a coalition of parties, are the lead agency for LEADER in South Pennines Area. Pennines are now seen as 'green heart' to the three major conurbations around it with 6 million inhabitants.

A Strategy for sustainable farming and food is part of the RDPE. It is an economic strategy aiming at productivity, workforce development, and conditions for sustainable growth. The Regional Spatial strategy discourse contains 'innovation' and 'linking city and hinterland' as slogans (Ravetz, 2008:49).

Numerous agencies act in a fragmented manner including the Forestry commission, Regional development agencies, and Natural England. They have national, regional and local partners. Regional partners are: North West Development Agency (responsible for the 72 million pound for NW England (axis 1 and 3), Regional Economic Strategy, accountable directly to national government).

Also North West Regional Assembly is a coalition, of 44 Local Authorities plus civic and business sector partners who prepare the Regional Spatial Strategy. The Government Office of the North West administers national government programs and funding streams, aiming to coordinate many other government departments and agencies (Ravetz, 2008:36). More recently 4NW (four North West) new regional leaders forum from public, private and third sector bodies is installed to shape government thinking and spending decisions. Council leaders from the five sub-regions of GM are responsible for approving or rejecting the Single Regional Strategy by 4NW that will replace the spatial and the economic strategy.

Performance

There is lack of coordination of small funding schemes. The spatial planning policy to balance between these is experienced as restricting development of business and households. There are different sector policies at different scales, which do not coordinate much. This fragmentation is excluding, hindering developments and not contributing to synergies in efforts. There is no overall peri-urban strategy. LEADER is most responsive to local concerns, more locally directed.

Society initiatives are multiple, and have emerged in response to the rural and peri-urban agenda with many agencies, units, partnerships (Ravetz, 2009:8) Local food schemes are growing rapidly (Ravetz, 2009:90). The local development initiatives do lead to accessibility for city people to peri-urban, open landscape/agricultural land. These local approaches strengthen the unique qualities of the areas they pertain to.

Strategy 3 Green Infrastructure (Ravetz, 2009 and e-communication 17-9-2010)

The Manchester researcher calls Green Infrastructure a holistic approach to environmental management and rehabilitation in peri-urban areas, including community forestry, climate adaptation and local food schemes. This strategy is not yet a really existing strategy in practice. Hence it is difficult to evaluate.

According to the researcher the Green Infrastructure should be at strategic scale and connect the urban & rural along natural features. It should be a main discourse in which different programmes invest, and different groups are involved, hence be promoted by a wide coalition of parties. It requires a multi-functional land-use policy framework and substantial communication and coordination between actors.

The economic dimension is crucial. Many conventional land-use policies would need re-thinking for the diversified activities that form the Green Infrastructure in a holistic way. The structures of spatial planning and local governance should focus on the potential for a diversified, multi-functional and multi-layer Green Belt.

An important aspect of the Green Infrastructure approach is to promote a value more than financial or functional, and of longer timescales than the short term objectives of present policy, with new thinking on economic and social benefits. Regional parks, tourism opportunities, well-protected and interpreted heritage, biodiversity and connectivity are highlighted as important components of the Green Infrastructure (2008, p39).

Performance

This vision is hard to evaluate since it is not an actually existing strategy. If it were, it would compare to the Landscape as a Vector strategy applied by the Association of the Montpellier Agglomeration. There the strategy has the character of a governance approach between and among authority levels and is part of the Scheme of Territorial cohesion and not of a local citizens initiatives based development. There is wider believe that citizens' initiatives and sections of the community working together are new ways of mobilizing and generating added value for both the urban and the rural areas, where public funding is unlikely.

General Conclusions on Greater Manchester region

The Greater Manchester peri-urban areas contain considerable landscape diversity. But there is great social and economic disparity among the population in relation to the green environment. Physical expansion of the urban area is limited by spatial planning policy, however there is continuing land use conversion from agriculture to other uses. The Green Belt policy has locally contained urban development but has also lead to shifting of pressure from urban developments onto historical centers, to increased commuting to areas behind the belt, and to exclusiveness. The containment policy is a negative or defensive function and often conflicts with other possible goals such as productivity and biodiversity. (Ravetz, 2008, 30) The policy is under growing political pressure. While the current policy stance of stability of Green Belt areas should be maintained as is, there is scope for adjusting the criteria of Green Belt to allow for the fulfillment of other goals such as productivity, biodiversity and demonstration of ecological lifestyles. (Ravetz, 2008, 30) There are in-built paradoxes in the developments, in that many of the most unique ecological habitats are located on sites of former industry or infrastructure, while expanding leisure activities in green areas also have negative environmental impacts. The provision of leisure and amenity for the urban population could be integrated with environmental goals, when the first objective addresses a deficiency in urban green and open space. In numerous locations however local citizens groups (several hundreds are known) have become active to improve the environment. The researchers promote a more integrated approach between the community initiatives and the formal spatial and sectoral policies. They expect that such integration could lead to a Green Infrastructure that produces wider ecosystem services and economic and social benefits, merging public investments with those of other parties.

Montpellier Region, France

(Buyck *et al*, 2008)



Fig 7.
Delimitation Montpellier Functional Urban Region
(map by DSA Rotterdam)

Land use developments and strategic issues in the region

Montpellier is the capital city of the administrative region Languedoc-Roussillon (level NUTS 2). It is located near the Mediterranean coast and the Cevennes mountain region is close by. Its geographic position between the sea and mountains define a major circulation corridor in south of France, between Spain and Central Europe and between Italy and Atlantic Ocean. Montpellier is a dense urban centre, adjacent to less populated zones, particularly in the North with the 'Garrigues' of piedmont of Causses. It represents the east part of the largest vineyard area of the world.

The city of Montpellier has one of the highest demographic growth rates in France, which for a long time (until 2001) was hardly managed at the communal level, and with no planning scheme at the scale of the functional urban area. The attractive geographical location and climate of the Montpellier region, in particular its urban fringe, causes considerable 'sun immigration' and creates pressure on further peri-urban development. Montpellier urban region recorded a growth rate of 8,4 % (compared to 2,6 % for the average of the 15 greater agglomerations of France) between 1990 and 1999 . Since the 1960s its population has more than doubled and a continued annual growth of 6.000 inhabitants is predicted until 2020. Employment in the urban area of Montpellier is largely concentrated in the central city(65 % of almost 172.000 employments, figure from 1999) . The population increase materialises through the horizontal process of urban sprawl: with 22 % of its buildings created after 1990, it presents the highest rate of recent buildings for cities of more than 450.000 inhabitants. The extension of the built surface happens by an expansion of its limits together with further densification. Not surprisingly, studies show that this peri-urban growth of Montpellier is favoured in the well-placed new building areas along the road and motorway network.

The geographic position explains the occurrence of climatic hazards like flash floods caused by heavy storms in autumn, coming from the Mediterranean and blocked by the hills and mountains. The risks of flood are significant and drive the urban planning policies of the urban region. Moreover, with open cultivated areas diminishing, the wildland-urban interface is accruing and with it, the risk of forest fire. The area has a significant biodiversity richness, for example, in the wetlands of the coastal lagoons with protected areas, including the valley of Lez and the top of the 'garrigues' in the north. The consumption of space due to the demographic pressure and urban use of water resources and recreational areas, has a very strong impact on the landscape and the ecological state of the region.

A major issue is how regional planning can help to balance the intensity of the urban and economic growth with the Mediterranean context of tourism, flood and fire risks and biodiversity.

Farmers dominate landownership, and become tied between two divergent strategies: protecting their farmland as professional asset, or selling it for development, as patrimonial/familial asset.

The most important issues at stake in the Montpellier region thus include (1) land pressure due to housing, (2) agriculture under pressure, (3) tourism integration, (4) traffic pressure, (5) water management and flood prevention and (6) high value nature at risk.

General government structure and policy arrangement

Rules of the game

The administrative organization of 'Montpellier Agglomération', is the 'Communauté d'Agglomération de Montpellier' (CAM). It is a public structure for cooperation between municipalities in France. The Communauté d'Agglomération is a space of solidarity for a joint project in urban planning and development, which was created by a national law in 1999. Montpellier Agglomération exists since 2001, and its competences relate to the fields of economic development, spatial planning, waste management, transport, habitat and the social policy, when the interest and the financial capacity deserve to be considered in the inter-municipal cooperation. Montpellier Agglomération has a

president and a council, which represents the municipalities, of which the smallest has less than 1.000 inhabitants.

The social and economic council of Montpellier Agglomeration is an advisory agency that has to be set up to give citizens a voice in local policy making, including spatial planning policy. Members are nominated by Montpellier Agglomeration representatives, according to their social representativeness (and their willingness and availability to participate). This council only gives advice that can be followed or not by the politicians and decision makers. Hence, this council may give citizens a voice as a complement to the representative democratic process at municipal level.

Ex-post control of land development and urbanization is carried out by the Préfet (resides at next higher administrative level which is the Département). This Département is also responsible for social support and solidarity issues, transport and infrastructure, rural development and perimeters of protection of natural and agricultural peri-urban areas. Protection of historic heritage happens by law already since 'Malraux' law, 1962. And the Ministry of Agriculture defends agriculture as activity in the general interest in urban fringes. Also these state officers ex-post control local decisions.

Farmers are major land owners in the urban fringe. The Département has the right to intervene in landownership in the fringe. This land-market regulation consists of pre-emption right of local communes for 15 years, even when land is not yet zoned to become urban. (Zone d'Aménagement défermée) Montpellier city is known to have settled strict but stable rules for developers, due to the endurance of its political ruling for more than 30 years. Decisions on local planning - including those related to the urban fringe - are made locally, in respect of the framework of national law. Hence, national ministries (through the state representative Préfet) have the task to advise and control that the decisions made by the communal council are consistent with national priorities. Since the early 1980s, municipalities have the power to grant development applications. From 1999, the law promotes three types of Inter-municipal cooperation (EPCI) in order to set up more consistent and powerful territorial governance structures, and thus simplify communal cooperation.

One of the EPCI types applies to the creation of Montpellier Agglomeration, associating 38 communes at the end of 2001. This new inter-communal cooperation provides for certain coordination of planning procedures. Concerted development plans include a 'Sustainable Development Plan' (PADD) with elaboration of alternative scenarios and linking environmental, social and economic issues together with urban issues. These scenarios are then tied with the SCoT processes (see below), along with several other planning instruments for urban transportation, housing, waste and water etc.

Financial and land resources

Since 1981 certain fiscal and human resources and administrative competences have been decentralized and allow the local (Association) level to decide on urban planning. There are two main financial resources for the CAM : local taxes (on land, buildings and economic activities) and national or European public funding. The local fiscal system, specifically the tax sharing between local governments and national government, is a debated issue in France, because of the recent reform (2010) that cut back the taxes on economic activities (taxe professionnelle), one of the main fiscal resources for local governments.

Farmers are key stakeholders in the rural-urban system because they are major land owners in the urban fringe. They are subjected to the general pressure from the land market and the agricultural products market in the context of urbanization and globalization. Speculative pressure from anticipating future development causes considerable price increase of farmland. Farming areas are thus subject to pressure from land developers at the same time as their farming production becomes less economically viable. The Zone d'Aménagement défermé concept allows public authorities to prevent land speculation in strategic areas for future urban developments (2009, p29). It is a very special legal tool that allows to freeze land price for 14 years (max). But a current reform is threatening this tool of public land policy.

In the inter-communal cooperation, there are tensions between smaller communes and the city of Montpellier in terms of the availability of resources. The small communes are

afraid to having to pay costs for equipment and services that do not correspond to their felt needs, which led to that some of the initial communes withdrew from the Montpellier Agglomeration.

Policy coalition development

The creation of the Montpellier Agglomeration has changed the power structure among the urban and the rural communes. However, with its 250.000 inhabitants, Montpellier city represents half of the vote power, and has a 'strong personality' mayor. There was initially local political conflict over how economic issues and competition among the communes would be solved whereby seven communes left the Montpellier Agglomeration in protest. Support from the national government takes form in promotion of environmental issues in the diagnosis of the urban planning, and state agricultural officers are among those few stakeholders to consider and defend agriculture as an activity of general interest in the urban fringe. Another opposing policy coalition includes developers and land owners, with other state authorities supportive of economic development. Interestingly, the state is thus on both sides – advocating protection of green space as well as exploitation for development, while the local authority is also ambivalent and containing divided points of view. Hence, both among the private and public stakeholders, there are divergent opinions leading to opposing policy coalitions among the same categories of actors. Farmers are key stakeholders in the peri-urban areas of Montpellier. They own most of the land and provide the landscape amenities. However, the farmers do not form a homogeneous social group. Their preferences and farm strategy in terms of commercial plan vary depending on individual traits such as ownership situation, urban proximity and position in life cycle. Hence, farmers are not able either to defend a strong position on peri-urban issues.

Policy discourses

The Montpellier Agglomeration's strategy claims to 'save land' at the same time as it should control property speculation. The goal is to preserve the long-term attractiveness of the city region while supporting economic (sustainable) development. However, the precise interpretation of what is sustainable peri-urban land use varies depending on which representative of the Montpellier Agglomeration is being asked. For the peri-urban areas, it implies to preserve and support agriculture and natural areas, provide for tourism and recreation, and care for waste management and flood prevention. For the farmers, they are divided between the goal of agricultural productivity and creating agricultural revenues, and that of economic gain through selling land for housing. Especially some of the young farmers are open to local agreements with the municipality to support agricultural projects and protect farmland. But the discourses which emphasize the value of the landscape and its environmental attributes are struggling hard in reality against the more powerful local economic interests represented by the land developers.

Strategy 1: Scheme for Territorial Cohesion (SCoT)

The Scheme for Territorial Cohesion is a strategy on peri-urban areas (Buyck *et al.*, 2009:9), with focus on cooperation between three levels of local authorities: The Département, the Agglomeration itself and the municipalities of which it is composed. The SCoT (Schéma de Cohérence Territoriale) spatial planning is imposed at the inter-communal level, which also calls for coherence between urban plans and surrounding territories. The SCoT was drawn up from 2002 to end 2005, in which different interests – including state officers with an advisory role - were involved in the diagnosis and contributed to the final planning scheme. It requires a diagnostic exercise, planning scenarios, a report about agglomeration issues and a synthesis document. A public enquiry was held, and the Communautary Council approved the plan in 2006. The plan sets the direction for a decade. In total, only 31 out of 93 communes in the entire Montpellier region are included in this SCoT scheme, even though the direct functional area of Montpellier is composed by over 40 communes and about 500,000 inhabitants in 2008.

SCoT is by rule central to the municipal housing (PLU) and urban mobility plans (PDU), site developments (ZAC) and housing standards (PLH).

Financially subsidies are obtained from the national government (Buyck *et al.*, 2008:23).

The Agglomeration pays 50% of the costs for urban studies to communes that prepare their urbanism plan in coherence with SCoT.

The Agglomeration advises and also provides competent staff to the municipalities in order to develop local plans, which contributes to a relatively high level of competence in spatial planning (Buyck, 2009:19). The Agglomeration has especially attracted urban designers of national and international fame and local experts (Buyck, 2009:23). It has also contributed to the avoidance of conflicts by skilled politicians through negotiations and finding out acceptable and shared solutions.

SCoT is developed by the Communauté d'Agglomération, in cooperation with the Department where both national state officers (e.g. from the Ministry of Agriculture, for integration and protection of agriculture in the SCoT) and the local government are present, the Conseil Général. The latter can intervene in cooperation with Montpellier Agglomeration to protect farmland in peri-urban areas. However, there is no legal competence delegated from the Department to Montpellier Agglomeration.

The non-organized individual stakeholders in the urban fringe as well as the cabaniers, illegal dwellers in rural areas, are often difficult to involve in consultations (Buyck *et al.*, 2008:28). Participatory methods mainly consist in the form of public utility enquiry.

The dominating discourse promotes the idea of territorial cohesion and injunction of the Sustainable Development concept. Demographic growth is appreciated as source of Economic Growth. The 'shared city' is promoted, hinting at social relationships. Also the 'thrifty city', preserving resources, and identity and heritage are spoken about. Use of collective transportation is considered as a lever of urban development (Buyck, 2009:12). Detailed illustrations of design solutions are used as reference base for local communes (the 'cahier de recommandation'). Important communication means and skills are dedicated to communicate SCoT and make it accepted and shared by the citizens of Montpellier Agglomeration.

Performance

In the SCoT planning exercise, local representatives of different interests and from many communes became involved which led them to reason at an unusual inter-communal scale. This contributed to a new balance between the urban and the rural, where peri-urban interests have gained relative power. However, it should also be noted that this new inter-communal cooperation is built upon indirect representation, through the 'Social and Economic Council' which represents the citizens. In the SCoT process, a new policy coalition was formed around the protection of green spaces, which also emphasized the development of new landscape qualities that could be enjoyed by the urban populations. The coalition of representatives from the state authorities together with farmers lead to the creation of a new tramway to facilitate transport in an environmentally friendly manner.

The shared learning process lead to a considerable mind opening and joint vision among the local authorities (Buyck, 2009:24) and even among citizens. The idea of territorial cohesion brought the municipalities to think of a higher level of integration, together with neighbouring municipalities.

The strategy contributes to a sustainable dispersion of land use (Buyck, 2009:15, 20). The rule of 15 kilometres as maximum diameter of an urban agglomeration stimulated the Agglomeration to spread development in a more sustainable manner (Buyck, 2009:6).

Local politicians both in speech and actions adhere to the SCoT. (based on case studies in three out of 30 communes). The promotion of green as vector (carrier) for the region, and controlled spatial layout are expected to strengthen the position of agriculture in the urban fringe and to limit increase of land prices.

The SCoT is legally and financially equipped with the necessary policy means. The spatial details and building densities guide municipal urban developments. While past developments were not sustainable, sustainable development now can rely on political support.

The development of planning tools that are exactly overlapping with the territorial entity appears an advantage for the executive local governance. However, the fact that part of the Functional Urban Region is not contained in it seems problematic. Urban developments leap over the Association's jurisdiction boundaries. Regional coordination between the different Communautés now lies with the Department and authority levels above that. The agglomeration is the most powerful local government in the region, it has become more powerful than Montpellier city. (Buyck *et al.*, 2008, p.30) According to the Montpellier researchers' and practitioners' assessment report the strategy has clear objectives, contributes to a sustainable dispersion of land use at the regional level and helps to make decision making in the complex situation more clear. The strategy has a clear time span (10 years), is well tailored both time wise, to land use patterns and legally. It restricts free riding behaviour and empowers local authorities. (2009, p20, 21) The strategy leads to innovation and is widely acknowledged as meaningful. (2009, p 22). In short, in terms of the assessment criteria that were formulated by case study practitioners and researchers the SCOT performs very well!

Strategy 2 Landscape as a 'vector'

This approach is part of SCoT and strengthened via the legal means of enforcement and the financial and land instruments comprised in the SCoT. Synergy between different actors in the project is created by means of the strategic concept of green spaces as a 'great city's' quality. Such as environmental associations, horse keepers, tourism stakeholders and local groups of inhabitants, though these local groups have at times only NIMBY -motives (Buyck 2008).

Landscape as a 'vector', or carrier, promotes the drawing of the countryside to reinvent the urban agglomeration, especially the cities. The green 'draws' the territory and landscape is promoted as asset. The strategy promotes the balance between nature protection and urbanization. It promotes landscape as guarantee of urban quality, as security of territorial cohesion and of local identity. It allows building synergy between otherwise opposing interests and creating relationship between different parts of the urban and rural areas.

Performance

The approach has successfully created a relationship between all different parts of the urban and complex area (2008, p 47), with landscape as a common good leading to the reunion of the different towns from Montpellier Agglomeration. (2009, 13). Landscape establishes a relation between different scales, from tree, to square, to river to Mediterranean sea. It relates the house door, to the local community, to the agglomeration in southern France, to the Mediterranean area (2009, p14). The strategy is assessed as resilient and effective at the long term, contributing to synergy, strengthening unique qualities and contributing to a sustainable dispersion of land uses. It enables existing rural types of land use to stay or develop and it contributes to new or additional urban economy because it enhances quality of housing environment and attractiveness to new residents. Its objectives are clear. The strategy raises awareness among developers of Sustainable Development. It contributes to the cultural commitment to the SCoT project (Buyck, 2009, assessment table), of which it is part.

Strategy 3 Density Building strategy

This strategy, also part of SCoT aims at higher density housing on condition of better accessibility. Developers have to share in the cost of collective costs. National solidarity and renewal law demand that 20% of annual new building in each commune be dedicated to social housing. The regulations to contain and densify urban growth consist in (2008, p.33) 3 levels of minimum housing density (>50 houses/ha, > 30, > 20). Development of collective agricultural hamlets are supported by Agglomeration, strictly limiting building on farmers land. The Plan Local d'Urbanisme of the participating communes must be coherent with SCoT. There is also a prescribed maximization of land consumption to 3.000 ha between 2006 and 2021.

Developers put pressure on politicians to change land use plan (PLU) and on farmers willing to sell to sign an intention to sell, so they can buy and develop housing estates in many villages. The notion of coalition does not apply here.

The intensified urban development and density building are combined with collective transport. Transportation is used as a lever of urban development. (2009, p12).

Performance

Case studies in three communes show adherence to SCoT plans. (Buyck *et al.*, 2009) The discourse of enhanced quality of housing, complemented with support of finances and staff from the Agglomeration has led to innovation and improvement in quality of new urban developments, in terms of density, urban design, landscape, green spaces and transportation (Buyck, 2009, p26) and sustainability (p27). The strategy is assessed as resilient on the long term, employing synergy, effective and having clear objectives. It helps the process of decision making by making a complex situation more clear. It strengthens the unique qualities of the areas and contributes to a sustainable dispersion of land uses at regional level, with a balance between resource availability and use. The strategy enables rural types of land use to stay or develop and leads to accessibility for city people to peri-urban, open landscapes and/or agricultural land. The strategy protects land with best agricultural production capacity. It sets a clear time span and there is legal, statutory, financial and cultural commitment to support the process. The design of the strategy is area based, tailored to the specific actors, land use pattern, land market and legislation and it influences decisions timely. Hence this strategy also performs very well in terms of the assessment criteria developed by the researchers and practitioners from the case studies.

Strategy 4 Farming as a 'natural' way to manage the urban-rural limit.

There is unanimous recognition of the threat on farmland. To preserve farming land, land use zoning is the main tool. Farming land status is further strengthened by the Land-pre-emption clause that defines land use status for 15 years. In addition to these measures to preserve farming land, the land price is set to that of farmland category! (2009, 30).

The farmers right to build on farmland is strongly restricted. To support farming the Communauté d'Agglomération has recently started to financially support farming. Examples are the support to innovative wine firms (Buyck *et al.*, 2008, p30), to the farming hamlet Saint Genies des Mourgues, to the building of the new wine cooperative, Union des Terroirs de la Domitienne. Also agriparks, landscape protection, outdoors activities, gardening, outdoor markets and other means for shortening channels for agricultural products from farmer to consumers are supported. Farmers can also receive public support to develop collective hamlets for their professional and housing needs. Recommendations from experts in farm sectors were not followed in the SCoT. (2009, p33).

Discourses that are used to promote farming and to manage the urban/rural limit are among others: 'Montpellier Agglomeration Patrimony', 'Vineyard Road', 'Pole d'excellence viticole'.

Performance

Family asset, farming system and position in life cycle are decisive factors for farmers 's choices: sell to a developer or stay, shift to other rural areas or even abroad? (Buyck *et al.*, 2008, p.32) The farming system is no longer economically competitive in the context of globalization and urbanization. (2008, p.38). In urban fringes breaking up of agrarian property, and turn over to short cycle crops (2009, p 33) occurs. Differences in livelihood situation of farmers hinder their coalition which is not in favour of strengthening agriculture in the urban fringe. The regional investments in agriculture, promotion of green as vector (carrier) for the region, and controlled spatial layout are expected to strengthen the position of agriculture in the urban fringe. These measures were more recently installed when the observatory showed that farmers in urban proximity continued pulling out vines and shifting towards annual crops.

Though the strategy strengthens the unique qualities of the area and enables existing rural land uses to stay and preserves best agricultural land, it is not considered to empower farmers sufficiently. Farmers' awareness is raised. But the strategy does not enable bottom-up initiatives by individual farmers. (2009, p 31)

Main conclusions on Montpellier region

The Montpellier region has experienced recent administrative changes in terms of decentralized power to the municipality for land use planning together with simplification and enhancement of inter-municipal cooperation that provide for a new territorial governance framework compared to before. In particular, the SCoT planning exercise has created room for certain local stakeholders to become increasingly involved in planning decisions over the peri-urban areas in this fast-growing French city region. Its tools are very influential and strong in coercing cohesion from the lower municipal levels, yet leaving room for spatial choices within certain standards. However, farmers' organizations are not able to defend strong positions on peri-urban issues because of the considerable divergence of interests among different farming enterprises. It is also evident that social segregation occurs in the peri-urban areas, due to increased housing prices in attractive areas. Leaping over of developments onto the agglomeration up north from Montpellier, outside the jurisdiction of the Agglomeration de Montpellier occurs. The influence of the policies of the cooperating municipalities of the Agglomeration does not cover the whole Functional Urban region which makes that pressure shifts to areas still within commuting distance of Montpellier but outside control of the Association. (Buyck *et al.*, 97).

Warsaw Region, Poland

(Grochowski ,2008, 2009)



Fig. 8
Functional Urban Region of Warsaw in green with Warsaw Metropolitan Area in yellow (map by DSA, Rotterdam) At the right a picture of urban sprawl in neighbouring municipality outside Warsaw city.

Land use developments and strategic issues in the region

Warsaw, the capital of Poland, is situated in a predominantly rural environment. The land use structure in Warsaw is much differentiated. There are typical urban forms of land use but there are also significant areas of agricultural land, composed of arable lands, meadows, pastures and orchards. These account for 23% of the city's area and are treated as potential urban development land.

Since the crash of the socialist regime and a subsequent political/economic transition Warsaw has been characterized by growing population and rapidly expanding economic activity, even though the total population in Poland, as well as its total urban population has stagnated. The region experiences “dual – mode” development - on urbanized and on rural areas - that result in rising inequalities in the level of economic development and

level of life. Development processes are polarized – Warsaw is a mono-centric growth pole of the region; no redistribution of wealth is being observed. Warsaw's population numbers have increased by 1.9 % for the city and approximately 6 % in 1998-2002 for the metropolitan area. Economic development is very rapid. Spontaneous suburbanization and urban sprawl occur. (Grochowski, 2008:5). Warsaw Metropolitan Area (WMA) is clearly part of the Functional Urban Region around Warsaw. The metropolitan area is attractive for its highly qualified city workforce (23% of Warsaw's population has a university degree), its good infrastructure and markets (Grochowski, 2008:5; 25). And the whole Mazovian region is well equipped with technical infrastructure (Grochowski, 2008:16).

Industry and market services are the most important sectors (Grochowski, 2008:34) Land pressure on high value nature and agricultural areas is high. Due to extremely rapid uncontrolled suburbanization processes and economic development combined with undeveloped governance practices, problems of traffic congestion, waste disposal and encroachment of residential and commercial development on agricultural and forest land arise. It is assessed by the project team that the standard of living is higher in the urban core than in the fringe.

General government structure and policy arrangement

Rules of the game

Together with its metropolitan area (Warsaw Metropolitan Area, WMA) Warsaw is located in the Mazowsze Region. The administrative unit is the so-called Mazowieckie Voivodship, of which its council is 4 yearly elected. The borders of the WMA are not officially delineated. The structure of local governments in the urban region is highly decentralized and fragmented and the system of plans is not hierarchical like it used to be under the previous centrally planned economy. The lower level plans are no longer subordinated to the higher level. Mazowsze voivodship includes 85 cities (the capital city of Warsaw, 4 cities – centres of sub-regions, 314 municipalities (gmina). An integrated plan for the whole metropolitan area to be elaborated by the regional self-governmental authority (the Mazovian voivodship) is still in an early stage of design.

Planning legislation and administrative division is under revision since the 1990s (Grochowski, 2008:5). The spatial Planning and Land Management Act from 2003 replaced the old one from 1994. This made old Land Use Development Plans invalid. Now, in terms of preparation of land use development plans in Poland less than 20% of municipalities in Poland have Land Use Development Plans (Sleszynski *et al.*, 2007, in Grochowski, 2009). Since municipalities can operate without these plans some prefer to manage spatial development through administrative decisions rather than through plans. This leads to spatial chaos, ineffective use of space, social and spatial conflicts. Lack of social control may result in corruptive behaviour of self-government employees responsible for land management.

The most challenging problems relate to the spatial planning system. Consultations among municipalities and different tiers of government are required according to the Spatial Planning and Land Management Act from 2003 but there is neither any mechanism to enforce harmonization, nor to resolve potential controversies. The rules for the current planning system are not precise enough, and there are gaps and inconsistencies. Moreover, since planning is largely sectorized, it results in discrepancies between economic development strategies and those on spatial development. The legacy of the previous centralized planning system still prevails in that there is a lack of 'planning culture' and understanding of the principles of comprehensive planning required to incorporate different interests and needs. Hence, fragmentation of policy making and responsibility for space use dominates the scene. The complexity of the rules of the game is not overcome by the three land use strategies mentioned below.

There are no specific planning undertakings focused on the peri-urban areas, and the decisions are taken ad hoc with much freedom to local authorities.

Financial and land resources

Much of land resources are privately owned. The city government plans to develop a multi-year plan of property sales and acquisitions to enable execution of the city's development strategy. Government owned properties which are not needed for providing public services will be sold or otherwise leased to private investors. With the political and economic transformation of Poland from 1989 and onwards, the pressure on farmers to sell their land has increased due to urban sprawl, higher land prices and aggressive behaviour by land developers. In the Warsaw region, real estate prices in the urban fringe are still rather low, but increasing (Grochowski 2009:7, compared to Grochowski 2008:30). With the inclusion of Poland as member of the EU, the previous decrease of areas for agriculture has halted due to the new economic support to agriculture contained in the CAP.

Policy coalition development

According to the assessment team, there is no felt exclusion of citizens' access to the appreciated peri-urban areas and there are no specific coalitions created to advocate further accessibility. Collaborative practices in the region (vertical and horizontal governance) are poorly developed.

Policy discourses

Development policies are focused on solutions of mainly economic problems, not area based (Grochowski, 2008:6). Specific interests of municipality or of an individual can prevent the preparation of a Sustainable Development strategy. The urban fringe is not recognized as such and the functions of open areas are not acknowledged in the policy documents of municipalities or at the regional level.

The investigated strategies (Strategy of Mazovia Development, Warsaw Metropolitan Area Spatial Development Plan, and Development Strategy of the City of Warsaw) that would apply to the peri-urban areas are instead more general and contain wordings that are formulated in a very general way and thus difficult to follow up and evaluate.

Strategy 1 Strategy of Mazovia Region Development

The strategy aims to strengthen cooperation between municipalities (2009, 9) and to harmonize development Planning. The region aims to create a cohesive system of legal regulations to protect environmentally valuable areas (2009, 10). Rules to settle controversies or to subordinate lower level plans to those of higher level are still missing (2009, p7, 6) and planning legislation is not precise, displaying gaps and inconsistencies. (2009, 7). The region wants to make investments serving regional public purposes (2008, 42). Former post-industrial land and military land are revitalized. From the case study report it is not clear where funds for all actions in view of the objective come from, and go to. It aims at awareness raising and at cooperation within Green Lungs frameworks, adopting containment policy.

Opinions and remarks are collected from authorities from all administrative levels, but coalition development is still in its infancy. Cohesive or unifying concepts for social, economic and spatial development (2009, 7) are absent. A good economic situation is considered conditional to Sustainable Development. (2009, p8), to improve the quality of life for its inhabitants, reduce poverty, and contribute to the development of the rural areas as well as of Warsaw metropolitan functions, including technical and social infrastructure, and the environment. Balancing regional and local interest is a purpose (2008, 42) as well as polycentric development of the region via infrastructure development towards sub-centres. Rationality of the spatial structure is considered conditional to social, economic and spatial order. (2009, p9). The region aims to develop tourism, agrotourism, biking and sailing, (2008, 22)

Performance

The thematic discrepancies between the sector plans is problematic and the organizational framework fragmented (Grochowski, 2009, 3) between economic plans

and concepts of spatial development (p.7). Legal regulations are inadequate and coordination is almost absent (p4). These contribute to a complex and dysfunctional land use pattern.

There is no redistribution of wealth of Warsaw growth pole (2008, p5, p39), because territorial cohesion and mechanisms are missing that could have allowed to utilize Warsaw's metropolitan functions to give development incentives to surrounding municipalities and other parts of the region. Tension between international competitiveness and territorial cohesion exists. (2008, 15, 16) While there is potential for polycentric development. (2008, 39)

Agricultural land is being converted into lots to be developed by location of other functions, though CAP has halted the previous decrease of agricultural land. The land is prone to changes due to congestion, pollution, spatial chaos, dysfunctional system (2008, p6) and a result also from lack of rigid spatial policies.

The impact on developments envisaged in the policy documents depends on the disposal of means of influence to enforce the developments. So far these are still weak. (2008, 64).

Strategy 2 Warsaw Metropolitan Area Spatial Development Plan

Warsaw Metropolitan Area is not formally delineated. The Metropolitan Area concept is now under development in Poland. It does not constitute a legal entity. Incentives to promote cooperation among municipalities or among other levels of governance are missing (2008, 48) though residents would appreciate cooperation on planning and management between the municipalities in the Warsaw Metropolitan Area (2008, 59). There is an intention to form a coalition between Warsaw and surrounding municipalities, the region and other cities. (2009, 16). But there are no such coalitions yet.

The Warsaw Metropolitan Area Spatial Development Plan is more precisely targeting the issue of how to increase access to metropolitan functions. Its aim is also to reduce urban sprawl and contribute to the protection of natural environment resources, partly by creating a 'Green Belt' around the city of Warsaw. Unique assets such as the Wisla Valley and Kampinoski National Park are to be protected, and improvement of living conditions in the surrounding cities is envisaged to reduce the migration flows to Warsaw itself. A concept of polycentric spatial development, with attractiveness in broad terms (economically, quality of life, identity) and social capital to be mobilized is developed. It aims at technical and institutional infrastructure to foster development of innovative economy within a polycentric pattern and at revitalization of cities.(2009, 13). The protection of environmental resources is among the objectives but among the public the notion of Sustainable Development is missing (2008, 60) even though they choose for quiet, green, safe, secure environments to live. Simultaneously a discourse of European competitiveness (2009, p16) and sharing with other areas is promoted.

Performance

Best or good agricultural soils in the municipalities are undergoing strong urban growth. (2008, 31). The social and economic profiles of the population is shaped by migrations. Whether the strategy is effective in retaining population in the surrounding cities is partly questioned by the assessment team, even though their verdict is that the strategy does help in protecting valuable agricultural land. The draft project Spatial Development Plan of Warsaw Metropolitan Area contains proposals for structural changes (2009, 13) , but the region has no means to enforce these changes. The public notices that Warsaw development does not take into account the interests of surrounding municipalities. (2008, 59).

Strategy 3 Development strategy of City of Warsaw

The Development Strategy of the City of Warsaw has similar goals as the other two strategies, namely, to improve road infrastructure and to create favourable conditions for economic development in the Warsaw region. Collaboration among the different local government units is hoped for in order to enable fast development of the entire area. In

doing so, however, zoning should be used to protect dense green areas from exploitation. In the urban fringe, the strategy emphasizes that most important tasks are to protect environmentally valuable areas and avoid disordered housing development, especially along exit roads. Principles of sustainable spatial and economic development are mentioned, but not effectuated. Preservation of important natural, economic and cultural value areas is promoted. But there are no unifying concepts, there's lack of understanding of the principles of a comprehensive approach to spatial development. (Grochowski, 2008, 48) Single municipality perspectives dominate (Grochowski, 2008, 48) and information is not properly exchanged between territorial self governments, private investors, owners of real estate, inhabitants and other groups. There is no such thing as a shared discourse, so development coalitions are missing. (Grochowski, 2008, 49).

Performance

Again, it is questioned by the assessment team if the aspirations materialize in reality. Chances for innovation due to participation of public are foregone by the participation approach that is formal and logistic. Lack of LUDP and administrative management instead, lead to ineffective use of space and social and spatial conflicts. It also brings with it a risk of illegal investments influencing behaviour of those responsible for land management. (2008, 46) There are no mechanisms for vertical governance, neither for horizontal cooperation. Knowledge and innovation is not stimulated, nor supported and there are no mechanisms for this. Innovative approaches are mentioned to be rare. (Grochowski, 2008, 49).

Main conclusions on Warsaw Metropolitan region

Existing strategies in the Warsaw region do not provide a sufficient policy arrangement basis for sustainable development neither in the metropolitan area nor in the bordering areas. Neither of the legal, institutional, or discursive elements foster such a development, while pure economic development is favoured in most cases. Lack of coordination along with few financial resources prevent the implementation of the current plans, and the legacy of the previous centralized planning system still prevails and counteracts any policy coalition development or bottom-up initiatives. There is no planning culture to build upon for increased societal involvement, which implies that strong economic interests dominate policy practice. The result is perceived by the interviewed stakeholders of Warsaw as messy and chaotic, while at the same time something that cannot be stopped or guided.

The transformation of the local and regional economy, accompanied by metropolization processes e.g. development of interconnections with regional and international networks and a heavy urban sprawl is typical of transition countries in Central Eastern Europe. A considerable part of the peri-urban development occurs in unincorporated (i.e. formally rural) territory and shows typical characteristics of a sprawling land consumption. Social differentiation is one of the results of the multi-dimensional processes of centralisation and decentralisation in the region, allowed by the flexible and development-orientated spatial policies. Different societal groups are enabled by the Strategy of Mazovia Development. In contrast, the Warsaw Metropolitan Area Spatial Development Plan is not viewed by the assessment team to be enabling at all for any societal groups or grassroots initiatives. However, since there is no legal, financial or cultural commitment to support bottom-up processes, one may conclude that engagement from citizens, business and NGOs is not systematically endorsed by the authorities in any of the strategies.

Hangzhou Region, China



Fig. 9
FUR of Hangzhou. At the right the City of Hangzhou in orange, urban core in pink
 (map by DSA, Rotterdam)

Land use developments and strategic issues

The urban centre of the Hangzhou area is located along the Quantang River in the southern part of the Yangtze River delta and at the southern end of the Beijing-Hangzhou Grand Canal. The area contains both mountains with woodlands and densely populated fertile plains with a dense network of rivers and streams boasting with fish and providing the region's breadbasket, including small scale agriculture. In historic times, Hangzhou was a capital city, and it continued to prosper as the silk centre for all of China until it lost economic status to Shanghai with its foreign stakes in the 1920s. With the socialist reforms in 1978 both urban and rural areas expanded leading to an imbalanced urban structure and high pressure on farmland. The 21st century has implied heavy population increase at the expense of farmers. Migrants constitute almost one-fourth of the new population. The current economic development is characterised by maturation driven by increasing competition with emerging enterprise zones in areas where labour and land is cheapest, coupled with a strong decline of the agriculture sector and a tendency to move up the production chain. The sprawl in the rural zones leads to environmental pressure such as water pollution and waste. Even if significant investments are made into creation of green space, these cannot keep up with the pace of urban development. The Hangzhou region is undergoing extremely rapid and large scale urban development, and can be considered as an outlier in comparison with the European case studies. The challenge is to reconcile three competing political discourses on 'land-use efficiency', 'social harmony' and the 'ecological city' expressed in the planning documents. Critical issues that were identified by the project team include: (1) the spatial development of a well-functioning city with high quality of life for its residents; (2) the low consideration given to agriculture and cultural heritage in general; and (3) the integration of former farmers into the social fabric of the new city areas.

Between 2001-2005 the population grew with an average 5 % per year (Yang, 2008:13). The population is relatively young and with low mortality. The predicted 2030 population in both urban core, inner-peri-urban together is 6.7 million inhabitants. Rural areas of the municipality are expected to continue to lose population. (Webster *et al.*, in Yang, 2008:13,14).

Hangzhou is the political, economic and cultural centre of Zhejiang province, and the second largest city after Shanghai in this region. The whole region is densely populated and one of China's three economic powerhouses. In European terms, the city would rather resemble a region.

General government structure and policy arrangement

Rules of the game

China is a socialist country that does not observe the European democracy values. Lower level governments should obey higher ones. In practice, higher level governments always impact and intervene in local businesses. Among the major decision making bodies for Hangzhou city are the Chinese Communist Party Committee, People's Government,

People's congress, People's Political Consultative Conference, People's Court and People's Procuratorate. The City Chinese Communist Party Committee plays a strategic decision making role in urban planning, but does not interfere in the day-to-day decision making. This is the task of the City People's Government, directly responsible for the decision making and implementation of urban planning. The City People's congress reviews the urban planning, approves plans and formulates related laws and regulations. The consultative conference consults on urban planning. City People's Court adjudicates on the cases against relation regulations of urban planning. The City People's Government authorities supervise the implementation of urban planning.

The City People's Court prosecutes criminal actions in urban planning and construction and can sue the local government, for instance in case of illegal requisition of farm lands by local government. In Hangzhou city, towns, villages and streets can not compete with larger city because of limited powers and only have executive functions, such as preparation of town and village plans (Jianjun, 2008:29), unlike e.g. self-government in Eastern Europe.

Often less importance is dedicated to plans while the City leadership can make decisions on annual key projects. In 2001 administrative divisions were reformed, and adjacent towns became part of Hangzhou. Different levelled cities – under the jurisdiction of central, provincial or county-level government – enjoy different powers in relation to planning. Hangzhou municipality comprises city of Hangzhou, towns, villages. The denomination is not comparable with European denominations. In all these systems, however, the Communist Party plays a decisive role in the decision-making processes. As mentioned, planning is dominated by an urban perspective due to the extreme population growth rates and rapid urbanization. Efforts have been made by the planning authority to formulate specific policies to deal with the peri-urban areas, such as the development of sector plans for the protection and sustainable use of natural resources at municipal level. The elaborate planning system includes both comprehensive and sector plans and a range of tools for urban development at different levels of government. The regulations for commercial land use follow ten criteria which – if fulfilled – rewards the developer/owner of the enterprise with tax rebates. The criteria include both requirements for intensive land use on the one hand, and environmental standards on the other.

Financial and land resources

The socialist system of publicly owned land has two forms in China. Land in urban areas (excluding peri-urban areas of the city which are not designated as urban land) is state owned land, whereas land in rural and peri-urban areas is collectively owned by farmers. The state can requisition collective-owned land for public good with fair compensation. In peri-urban areas farmers appear to be well compensated when their land is expropriated, since urban land prices are high. Land prices are rising rapidly in particular in the inner city as this area is most preferred for economic investments and population increase. In the urban core long term land lease by industries form a land reserve. Once lease comes to its end Hangzhou City can re-orientate land use (Webster *et al.*, 2003 in Jianjun, 2008:22).

A circular economy approach is developed, whereby revenues generated in a targeted city through economic activity, largely remain in the city (according to the 11th. Five Year Economic and Social Development plan). The circular economy provides Hangzhou city with revenues for investments in infrastructure that is needed to support the polycentric lay out. Within urban areas the land leased out to business can be withdrawn at expiration of the lease and used to develop according to new insights.

Also in national development zones the tax revenues are kept within the zone. Yet, in addition to subsidies from Central Government, local tax and profits from selling land also constitute a major revenue for this local government. Paradoxically, however, the latter provides an incentive to urban sprawl.

Policy coalition development

The involvement of private market forces and public interests in top-down government decision-making is still at its infancy, although in particular private developers have

successfully entered the scene of urban development. Due to the legacy of the centralised and hierarchical political system, horizontal coordination between the city and adjacent towns, as well as between districts and villages at the next lower levels of the planning hierarchy strongly compete rather than form alliances. Uncoordinated development as a result is one of the biggest challenges in the peri-urban areas. It is also clear that a range of sector strategies exist alongside e.g. for landscape protection, and urban and infrastructure development. The extent to which these themes are integrated in practice remains unclear.

Policy discourses

The government decided to replace the core of the city to the other side of the Quantang river (Yang, 2010:5). The 2001 reform and integration of adjacent towns into Hangzhou city enabled a reorientation towards more polycentric development of the city region and relief of pressure from the urban core (Yang *et al.*, 2008:15). The spatial spreading out is expected to contribute to a more sustainable balance between urban and rural functions. The strong legal power position of Hangzhou City enables it to effectively coerce such spread development. The spatial concepts employed in for the overall Hangzhou region (approx. 15.000 km²) is referred to as 'One centre, two rings, three axes, two vinculum, one circle, some points' (Yang, 2010:39). The urban perspective has strongly dominated the planning discourse, even though the need to protect farmland is gradually moving higher in China as a whole. Sector authorities and plans such as the Ecological Forest Plan show that urban and rural issues are increasingly seen together, for example 'urban forestry' has now become a planning discourse. It includes not only forestation and forest management for ecological purposes but also diversification of farming and the promotion of tourism and recreation ('village greening'). Certainly, the role of the forest authority is however weak in relation to the City's parks department who makes decisions on green spaces, and the need to find a better balance between urban and rural needs is recognised.

'Land-use efficiency' in response to sprawl and 'ecological city construction' in order to provide good environmental quality have become important political discourses in urban development. Another important discourse is that of 'social harmony' to reduce the widening gap between winners and losers in economic development.

Strategy 1: Zhuantang Ecological restoration and controlled urban growth

Zhuantang area (156 km²) is a tourism and ecological protection area, lagging behind in urban development. The strategy aims to combine moderate urban development with tourism and protection of the cultural and ecological heritage and comprises a pollution preventing spatial policy, that among others forbids polluting industries. Though Zhuantang area comprises 3 towns, 1 township and a holiday resort, the spatial planning responsibility lies with the City of Hangzhou. Hangzhou municipal Committee puts forward development strategies for the area. (2008, 50). The strategy aims at a win-win situation in terms of economic and ecological development.

The rural areas land is collectively owned by farmers. (Yang *et al.*, p.40). Farmers are reimbursed for expropriated land. The principle of 'circular economy' adopted to keep development funds and revenues within Zhuantang area. Case specific compensation mechanism is applied, to compensate costs for e.g. cleaning of old mining sites. More generally labelled (not case specific) compensation mechanism is under consideration. Tourism development projects are independent from the district, have little economic connection with it. Preferential policies are also applied in the form of reimbursements on income taxes and customs duty to developers who have invested in tourism and resort business. Cooperation of private developers with Hangzhou City to develop residential housing happens according to plan. But this is not a coalition. The developers follow the instructions by the City. There's no discourse development either: planning and official documents are the most important way of promotion. Government promotes moderate urban development with tourism and protection of the cultural and ecological heritage, traditional farming and life style to attract tourism. The government also promotes green agriculture development with use of green pesticides and organic fertilizer; and organic

tea production. Also as scenic spot development strategy is employed by Hangzhou municipality (2010, 26), sustainable development and linking up with the creative sector are promoted as well.

Performance

The strategy enhances the ecological values of the Zhuantang area while contributing to local economic development, making up for the missed urban development economic opportunities. Agricultural land is expropriated and built. Loss of highly productive farmland is strong. (Webster 2003, in Jianjun, 2008, p21). Reimbursements to farmers and other house owners for lost private property seems sufficient. But their social integration into urban life remains problematic. (also concerns Xixi strategy). The 'circular economy' principle contributes to balancing growth between urban and rural parts of the region. But development benefits are leaving the area. The promotion of the SD concept is expected to raise awareness among stakeholders, developers, scholars and citizens and restrict their irrational actions. (2010, 31), according to the assessment team.

Strategy 2: XiXi Wetland - Strategy

The strategy combines Landscape and Ecosystem restoration, tourism and recreation with up-market housing. West Lake district administration applies to Xixi area. It is a mini city government that should follow the order of city government who can overturn West Lake administration's decisions. Per 2005 Xixi obtained a wetland protection as first national wetland park in China. Farmers were given urban status so their rural collective landownership status could be taken from them. (2010, 15) and the obligation of central state permission was avoided by cutting up farmers collective land in smaller parts. (2010, 15) Detailed regulatory planning was conducted by Hangzhou municipality, comprehensive including planning of supporting infrastructure (2008, 60) . The expropriated farmers were reimbursed with new homes and compensation ground. Compensation rate for this is high in Hangzhou, since land prices are also high! There are no coalitions involved in this strategy. The Municipality and Real Estate Developers cooperate and there is cooperation with tourist business, universities, research institutes and invited experts. But these are not forms of coalitions. The Xixi-wetland strategy has adopted a win-win principle of commercial development during the protection process as well as environment protection during development. It use the identity of the historical landscape (heritage) in vicinity of residential areas to improve the image of the area and its attractiveness to potential up-market residents. Various events are used to reinforce the park's image as a scenic area (p.14) and to educate the public about wetland protection. The political meaning of a discourse does however not apply to the Chinese cases. The government does not engage in governance approaches with discourses to create coalitions for joint strategies. The government decides!

Performance

The important wetland ecosystem was reduced from 60 to 10 km². (2010, 14) but with the new status this trend has been halted and historic ponds have been preserved. The top-down planning by Hangzhou government before urban development has great value to control development. (2010, 19). The integrated approach combines protection of local culture, microclimate improvement for urban area, tourism and recreation. The Xixi-area now represents the highest quality of life area in China attractive to up-market residents (2010., 19), bringing development opportunities and benefits to local people. There are still serious public transport restrictions, and not enough recreational green spaces. Brand effect of recreational tourism has created unlimited opportunities for the dealers and positioning of Jaingeun as tourism service base and as service base for Zhejiang University.(2010 p.16) There's also a release of tourist pressure on the West Lake area. Yet the voice of more general public, especially of farmers, is not encouraged (p.18). The urbanization of farmland has not only lead to a loss of eco-environment quality. Farmers, though reimbursed for the expropriation of their land, have no competitive skills at the labour market. They are only to a limited extend employed in garden

development and management. (2010, 13) The farmers are the vulnerable group in this process.

Strategy 3: Binjiang Technology and Economic development

This housing policy aims to combine housing from the onset with an effective transport network. This strategy again represents typical top down development lead by Hangzhou government. Though Binjiang District has very few impacts from other level governments since city government granted it with relatively more independence than other districts. Binjiang district re-obtains taxes on commercial development that it pays to Hangzhou municipality, in the form of subsidies. For international firms very interesting investment conditions are created. Polluting industries are totally forbidden. Land prices in the inner city increase strongly. Land in Binjiang is owned by the state, represented by Binjiang District Government and only available to firms and to residents on lease (2010, p. 40.). Binjiang enjoys self-administration as well (2010., 6) and can sell land and keep the revenues. Land acquisition involves two levels: district (for preferential policies to foreign investors) and town government. Developers acquired land at low prices anticipating a rise of land prices in the future, storing land. Private developers cooperated with governments, to develop residential developments according to plan. No coalition but mere cooperation. Discourses are “Blue air, clean water, greenness and quietness”. White horse Lake eco-creative town. High tech industry brand. ‘Two Strong Industries’, ‘Two Excellent Industries’, ‘Two New Industries’. (2010, 38) The strategy makes a link with the ‘creative sector’. Regional characteristics and cultural and ecological heritages are combined together for the pursuit of urban aesthetics. (2010, 42). Binjiang is promoted as the main science location to be for Hangzhou (2008, 46)

Performance

Economic development is successful with at present 5000 firms, 10% international, 397 high tech companies and 200,000 inhabitants. Though the infrastructure connections to the core city fail and thus limit the residential occupation in Binjiang district, commuting time is 1 hr. 15 minutes. There is waste of land and land storage is developing since developers could acquire land at low prices.

An obvious positive effect of self administration in Binjiang in comparison to absence of self administration in other parts of Hangzhou, is the speed of decision making: very fast, since they do not have to ask for permission from city government concerning a number of development issues.

The forbidding of polluting industries is very successful. Polluting industries now go to cities that care more about economic development than environmental quality.

Education tickets, targeted employment activities, profession skill training, employment wall, livelihood subsidiy, old day insurance and health insurance help farmers (2010, p. 40) to integrate urban life.

Conclusion on Hangzhou region

The major challenge according to the studies in the Hangzhou region is how to balance environment and economic development interests in a context of extremely rapid urbanisation. While government authorities are acting in line with Party-dominated and strong hierarchical planning traditions, private investors play an increasing role in land use development. In the process of the development of peri-urban areas, a prominent problem is how to satisfy farmers who lost their land due to expansion of housing areas or the protection of nature. Farmers who are bought out by development projects suffer from social exclusion. In general, there is a growing social and economic gap among the population in spite of the rhetoric of social harmony and that everybody should gain from current economic development.

3 Conclusions

Firstly we describe the land use developments that appear in the studied regions, starting with those that seem unsustainable and then the social dimensions. Next we draw conclusions based upon the analytical framework using the variables of the 'policy arrangement' concept to explain the performance of governance in the regions. Then we zoom in on the role of spatial planners, preservation of green spaces and poly-centric development in relation to sustainable dispersion of land use. With this we have answered the research questions formulated for the governance research module of the PLUREL project. We have studied regional governance and especially the strategies suggested by regional practitioners. We have answered the questions they raised during the international consultations in terms of identity and whether people are able to live where they would like to live.

In the end of this chapter we reflect on the sustainability and governance concepts that we have used for the comparative research.

Land use developments in Rural Urban Regions and sustainability

Sustainable dispersion of land use in the Rural Urban Region

The case study researchers could not come to an agreement on what exactly is a sustainable dispersion of land use. Nevertheless, the descriptions of developments in the regions in the previous chapters teach us what is *not* sustainable or the result of such developments:

- citizens continuously migrating in search of income or a quiet, green, secure and safe environment. Except for the young and dynamic who are (still) unattached, generally this reduces possibilities to build up a social network around the place where one lives to fall back upon in times of need; including the prospect to attach to a place and develop a sense of community belonging;.
- commuter streams and congestion created by long distances to the places of work, leading to high CO₂ emissions and waste of time that could have been enjoyed and/or used more productively;
- loss of good/best quality agricultural land to roads and buildings, land that if not locally needed, could have fed populations elsewhere on the continent or globe;
- densely build neighbourhoods devoid of quality of life, where the lower income groups are left behind while middle and high income groups can afford to move away and settle in a better living environment;
- rural areas devoid of rural development opportunities where the young and dynamic/intelligent leave in search for opportunities elsewhere and the old or less educated remain.

The case studies present these developments in different forms, developments that either in economic, social or ecological terms are unbalanced, unstable and not conducive to a future where people enjoy the same possibilities as the present population. These developments are the result of investment differences, restrictive policies that overlook the need for development, lack of public/political awareness of the importance of ecosystem services and sustainable development, ending up with elected politicians that emphasize the economic development that indeed is also important but not the only side of the coin.

The case studies also provide the insights and policy dimensions needed to contribute to more sustainable dispersion of land use. Good public transport and infrastructure

connections are important to provide populations access to the labour market without congestion.

Green infrastructure contributes to accessibility of green open space and related qualities that allow all social groups to enjoy open space. Too far carried compaction of large cities do not allow for green corridors/capillary structure linking urban space to rural space and do not allow for linking up to ecosystems further out.

Compact building and proper procedures to classify can help preserve prime agricultural land and its ecosystem services.

The peri-urban area as a source for conflicting development

The analysis shows that the peri-urban area is used for recreation by the urban population, but also for water storage, car dumpsites, waste disposal, and motor cross sites. At times it is seen as a location of great contrast, housing both very wealthy and very deprived communities. A distinctive feature is that the urban fringe is not considered by its own intrinsic values but merely as a solution to urban problems and as a cheap source of land.

The case studies also present a picture of congested cores versus rural decline in the rural hinterland of the studied urban regions. The primate of power of regional or national capitals and their strength in attracting investments leads to seemingly ever growing metropolitan cores, while populations in other parts of the Rural-Urban Region shrink. This leads to unsustainable distribution of land uses and represents unsustainable growth.

Hence a dual mode development, or bipolar development, is observed in the case studies. More rural areas, like the Pennines surrounding Manchester, are facing population decline. Also in rural areas around Leipzig, Koper (until recently), and Warsaw the decline of population or unemployment problems are mentioned. In numerous (urban) regions across Europe decline of population, exodus of the talented, young and ambitious citizens from the rural parts towards the urban cores is mentioned. It is important to keep in mind the distinction between rural, peri-urban and core city areas in this respect. The urban fringe is housing the daily commuters, whereas the population in rural areas does not have this access to the urban labour market.

The city of Leipzig-Halle displays an interesting exception to the compact city problematic. Here there is a wide variety of vacant buildings and brownfield land, and the core urban structure can be described as perforated rather than compact. This is due to past outmigration until 2000 and to suburbanisation since the 1990s which is similar to what has happened in Manchester in an earlier period. Very recently, the population of Leipzig is stabilising, even slightly growing again. The past out-migration in Leipzig-Halle shows similarity with other post-communist countries like Warsaw, Poland and Vilnius, Lithuania, etc. where people are now moving out of the congested cores. In Leipzig this process started earlier already with the German unification. Part of Leipzig's departure from the congested urban core is explained by jobseekers moving to western Germany.

Social aspects of peri-urban development

There is considerable variation among the case studies as to which social groups tend to prefer the peri-urban area as their priority for residence and what specific areas they select. In the highly dynamic region of Mazovia, for instance, demographic processes are shaped to a large extent by migration (Grochowski, 2008:23). The Warsaw Metropolitan Area displays the strongest urban pressure in municipalities with the best environmental conditions; the municipalities with open spaces, forests, valuable land for agricultural production are the most attractive for potential settlers/newcomers (Grochowski 2008, 6). There, interviews showed that residents are in search of quiet, open green, safe areas to live, where they feel at home. Warsaw is judged by them as crowded, with traffic and noise. Warsaw is considered more attractive by people who are looking for specialized services (culture, leisure, recreation, education) or attractive jobs. (Grochowski 2008: 57-58). The Koper case study teaches us (University of Primorska -

Science and Research Centre of Koper, 2005, in Perpar, 2008:49) that 75 % of the Koper population prefers to reside rural or peri-urban. In Montpellier housing preferences have changed and now families and high income groups prefer to live in the peri-urban areas. In Greater Manchester the population has dropped with 0.5 million over the last 40 years and is caught between inner decline and outer growth. In some inner urban areas, social indicators of ill-health, crime, unemployment and pollution all overlap (Ravetz 2008: 26). In Greater Manchester the affluent and mobile communities even leap frog the Green Belt in search for quality of living environment near – and sometimes within – the Green Belt (Ravetz, 2008:30). They accept long commuting times to do so. Also in Leipzig there is demand for residential areas outside the city, rooted in the desire to realize new lifestyles outside the inner city. Sprawl has accelerated in response to improved transportation links and enhanced personal mobility. Or, couples with double incomes have to live in one city and work in the other (Sinn *et al.*, 2010:14) and contribute to mobility. We can interpret this as a development that shows that the urban regions have reached a level of prosperity that enables people to combine a better environmental quality of life while having a decent income from working in the core area. In probably all recently accessed EU countries these trends can be observed. But it is an indicator of the fact that quality of living environment in the urban cores does not respond to the wishes of a large number of citizens. And, as suggested by the Warsaw case study, there lies an important task ahead for the spatial planners and policy makers.

Governance patterns and performance

Comprehensive as well as sectoral strategies compared

When comparing the different strategies – to promote agriculture, recreation, protect biodiversity, reduce housing pressure, and comprehensive land use planning - we found that in practice, it proved difficult to analyze them one by one. Instead, they were found to be integrated to a certain extent. The Koper strategy to protect 1st quality agricultural land appears the most sectoral of them all, while the Koper regional development plan and the SCoT from Montpellier are the most comprehensive in terms of area coverage of the Functional Urban Region. The other strategies lie in between, with varying degrees of integration, and often a strategy's performance is clearly influenced by the presence of other strategies or the overall policy arrangement in the region.

Hence, the different strategies should be seen as complementary tools at different levels and with varying degrees of precision in aims. While some are directly created for the purpose of protecting green belts and ecosystem services, the overall planning strategies are less concrete and leave much room for further interpretation in how to balance competing interests. Comprehensiveness in terms of spatial coverage as well as in terms of issues coverage (across sectors) are features that have certain implications on the governance. In particular, such comprehensiveness calls for coordination and accountability mechanisms, corresponding to Type I governance according to Hooghe and Marks (2003). It also raises concerns for providing appropriate tools for managing and solving conflicts between different interests both through traditional democratic mechanisms and inclusion of relevant stakeholders in the decision making processes.

Rules of the game

In most of the studied regions, the problems and opportunities of peri-urban areas fall into a perceived policy gap in between the urban and the rural policy regimes. As such, peri-urban areas are not easy to define, with no single agreed boundaries, and they vary greatly both within nation states depending on the size and character of the urban settlements and across Europe due to diversity in urban cultural heritage. Peri-urban areas often suffer from lax or sometimes even non-existent spatial planning procedures

compared to the urban core. Their position at the intersection of different jurisdiction boundaries makes them vulnerable to urban centred developments.

In the former East European context – which applies to Leipzig, Koper and Warsaw – land use planning was traditionally centralised and the development pressure on the urban fringe was fairly low due to low land prices and public control. Spatial planning policy is now under transition to European Union standard, with sustainable development as the guiding principle, but with few statutory coordination and control mechanisms. In parallel, agricultural enterprises are undergoing similar change due to land privatisation and more competitive agricultural markets. With rapidly changing economic conditions, previously protected lands for agriculture and nature conservation are now under high pressure for commercial exploitation. However, there is little – if any – public control of the current land use development and building permits. The result is a continuous degradation of ecosystems and loss of green areas and cultural landscapes.

In the West European countries – such as in Manchester, The Hague and Montpellier – globalised markets for agriculture and urbanisation of rural populations have also created new conditions for land use policy in the urban fringe. At the same time as new policy instruments have emerged to halt the loss of biodiversity, provide recreational areas and access to green space for urban citizens.

Still, the green areas are generally located outside the extensive and dense urban fabric. However, they appear both inside as well as outside the urban fabric in the Leipzig-Halle case where the Green Ring strategy links inner-urban green spaces to peri-urban green spaces providing a green space network traversing urban areas. Furthermore, urban perforation is actively "used" to green the city in both Leipzig and Halle, e.g. by creating neighbourhood parks on brownfields etc.

In all the case studies, supported by enhanced financial conditions, preferences for living in the peri-urban or rural areas have increased pressure to develop housing with access to the rural landscape. This is a general phenomenon in Europe. If not accompanied by adequate transport facilities, it leads to congested infrastructure. Even though the West European countries have mature spatial strategies and planning, they still suffer from inadequate integration between parallel initiatives.

The case study of Hangzhou, situated in China, represents a planning culture which is very different from the six European case studies. Here, the top-down government-controlled planning system is still in place, even though private investors are gaining ground. Peri-urban policies are not defined but exist only as default between the urban and the rural.

We also see common patterns of continuing processes of metropol-ization of former rural communities in several of our case studies, driven by global influences of new social and cultural lifestyles. The same trend in preferred life style is present all over the industrialised world, including East Europe, thus furthering the development pressure in the peri-urban areas.

Financial and land resources

Most case studies – not Leipzig-Halle - point clearly to the issue of steadily rising land prices in the urban fringe, and the accompanying pressure on local politicians and planners to allow for certain economic development and expansion of industry and housing at the expense of open spaces, green belts and nature reserves. The levy of local taxes also contributes to the tendency of peri-urban regional development agencies to prioritize new settlements in order to create a sufficient tax base for the provision of public services. We note the emergence of a complicated socio-economic mix of activity in the peri-urban areas. There is at the same time evidence of 'counter-urbanization' through the dispersal of population and economic activity to a wide radius of the city, along with 're-urbanization' through the return of some populations to a more dense city

lifestyle. Especially the mobile and more affluent communities enjoy the possibilities of residing in the peri-urban areas while maintaining a high economic standard. Lower income groups are staying behind. Meanwhile, the effects of this 'displaced' urbanisation may overlook environmental capacities and weaken social cohesion in the peri-urban area.

The possibilities for financial compensation to farmers and others who help provide ecological services in the peri-urban areas are noted as important particularly in west Europe. The EU schemes for environment and rural development as well as the European Fund for regional development are highly relevant, but neither of them seem to facilitate the integration at the level of the urban regions but target either the rural or the urban setting rather than the peri-urban areas. In China, the Hangzhou government's payment to those municipal areas that may lose development opportunity as a result of environmental protection such as preserving water and green areas for the urban dwellers is also a case in point. Hangzhou municipality is sufficiently large to adopt preferential economic policies for those rural areas that provide important ecosystem services to possibly provide a standard of living that is conducive to the people to stay and build their future. Financial support to green development was provided in the Leipzig area, through the Saxon funding guideline Regio (FR-Regio), Regional Development Concepts with a focus on environmental actions were established. This provided access to funding to the small municipalities that otherwise would have more difficulty in engaging in environmental protection and development initiatives. However, the strong management of applicant parties is an important condition to the final success of the REK (Bauer, 2010:17). In Montpellier agglomeration, financial support to farming initiatives and cooperatives is a way of compensating for less urban development by investing in environmental quality in the region, similar to the Hangzhou government.

However, the issue of local tax incomes is problematic in situations of shrinkage of the population as it may create sharp competition between 'green' developments and urban development since shrinkage, leading to lower house prices, generally attracts lower-income groups with less tax power. In Montpellier, the cutback of taxes on economic activities has significantly reduced one of the main fiscal resources for the local governments. Emphasis on the "rewards" of inter-municipal cooperation, such as task-sharing and improved prospects for regional tourism, such as the Green Ring Leipzig and the Funding rules of Saxony seem to offer a way out of the vicious circle (Bauer, 2010: 19) of competition between municipalities in a shrinking situation.

Lease of state or municipality owned land to business, including to farmers might be a solution to consider as a means of steering. In the European case study regions land ownership is often obstructing a sustainable dispersion of urban and green functions (e.g. The Hague Region need for land banking to support Green Blue Services by farmers). In Hangzhou the state leasing of land to business contributes to a degree of flexibility in planning, more state control and continuous source of income to the municipality. Here, we may also mention Larje Valley, Gothenburg, where financial means (tariffs depending on services) were exerted to increase environmental services to urban dwellers by farmers, allowing them to farm at lower costs (lower lease price for the land) on condition of provision of environmental services. In the Netherlands, the Green Blue Services concept which is yet with limited financial resources and means of regulations is expected to be more successful in preserving agriculture in the urban fringe when accompanied with land banking. Land banking by a cooperative in combination with lease maybe might be helpful in the situation of old farmers who are depending on their land for their retirement pension and want to preserve the rural identity such as in Montpellier region.

Policy coalition development

There is considerable lobbying from commercial interests to create flexible spatial planning procedures that allow for expansion of housing into the peri-urban areas.

Politicians are thus faced with having to balance between environmental protection and socio-cultural interests on the one hand and powerful land expropriators on the other. Environmental groups advocate increased protection of valuable natural areas, and are sometimes forming coalitions with socio-cultural interests for rural development. Even though they are supported by state authorities and legislation, those interests have less access to the municipal political elites. The general pattern is that participation of the general public remains a major challenge to policy development in the peri-urban areas, especially since constituencies are only loosely tied to these geographical areas and social and economic cleavages provide obstacles to open policy procedures. Montpellier Agglomeration however seems successful in achieving a more sustainable spread of land use in the region with mainly informing the public in a professional way.

Authorities or other actors with the most powerful mix of means of influence have the strongest influence on planning decisions in the region. We observe that most regional policies are weak in social and environmental performance because the main powerful actors have a biased discourse/vision, aimed at economic development. Professional visions at the interest of Sustainable Development or a culture of Sustainable Development are either weak or absent, as reported for example from the Koper case study, or do not succeed because the influence of the authority is inadequate. Montpellier Agglomeration is a positive exception. In Montpellier agglomeration, the researchers observe a political willingness in both speech and action to develop the agglomeration into a sustainable dispersion of land use, and to high quality urban development. The notion that the regional attractiveness is at stake has become widespread among the locally elected and the coalition 'Communaute d'Agglomération de Montpellier' is powerful. Also, the Communauté disposes of the legal, statutory, financial and cultural competences to steer land use developments. The region is large with relative low population density and hence more easily can realize such policies than, for instance, the Hague Region.

The strength of the developers in land acquisition for housing and industry development stands out as a difficult – as well as economically disrupting element in the creation of powerful policy coalitions in support of public interests. For example, the onset of post-socialist transformation in the Leipzig Halle region beginning in 1989 eventually led to a huge oversupply on the markets of housing, office space and developed land in general (Nuisl and Rink, 2005). Speculation in the agricultural economy in the fringe is mentioned to be profound in several of the case studies, and causes major problems in asserting public access to green areas. It sometimes also leads to legal challenges and appeals by developers against Green Belt planning decisions, as reported from Greater Manchester and Warsaw regions.

Policy discourses

Two parallel strands can be discerned that concern the peri-urban areas: public discourses on environmental protection are gaining ground, at the same time as economic development and expansion of city infrastructure and urban values is embraced by political elites and private developers.

A lot of rhetoric is spent on nature and biodiversity protection, providing access to cultural and natural landscapes for urban populations. For example, in both Manchester and the Hague region Green Belt/ Green Heart policies have been traditionally strong and enjoyed extensive public support. Similarly, in Montpellier, Warsaw and Leipzig Regions new public discourses on preserving green areas are becoming prevalent, at least reflected by some of the civil servants.

However, discourses and coalitions that are not provided with sufficient financial means or land resources will not succeed. We conclude that in our observed case studies economic interests still prevail and social cleavages continue to grow, thus creating

further pressure to allow for development needs in terms of housing and infrastructure in the urban fringe and causing metropol-ization of rural communities.

The case studies show that economic motives dominate spatial and land use planning decisions (see e.g. Perpar, 2009b), but this was not always the case. In Leipzig Region the notion of social planning that was central to traditional spatial planning under the socialist system was lost after the reunification of East and West Germany. Similarly loss of social planning occurred in Koper region. Likewise, in Manchester the traditional Green Belt policy has since long prohibited development in the belt, but strategic projects are often exempted. These are major economic enterprises leading to large scale employment and motorways (Ravetz, 2009:23) such as business parks, etc. In Warsaw Metropolitan Areas residents in the urban fringe find it a first task of municipalities to secure conditions for economic development. But the discourse of economic development is a very one-sided discourse. Every other value seems to lose colour in the face of economic considerations. In most of the areas building is unnoticeably considered as means to prosperity, whereas the migration movements show that above a certain level of prosperity other factors emerge that make people leave the same areas. In particular, we observe a weak social argumentation in comparison to the concept of economic growth or ecological motives that want to protect environment and nature rather than considering it as part of the way of life.

However, the notion of 'landscape' seems to appeal to broader constituencies than does mere 'nature protection'. As noted by Buyck *et al.* (2009:12) landscape is represented into the discourses of Montpellier as a link between disparate parts of the urban and sprawled territory, putting centre and periphery at the same level. The protection of landscape without reinstalling it as an integral part of urban life misses a communicative potential. It might even be alienating residents of urban agglomerations from the natural environment that is a prerequisite to life, also to urban life. On the one hand, Buyck *et al.* (2009) note that the discourse on 'landscapes' in fact led to the reunion of the different towns from Montpellier agglomeration. On the other hand, they also observe the fragmentary ideas on landscape, often associated with an actor's profession where landscape becomes 'the area of projects', a 'great field of experiments' (Buyck *et al.*, 2009:13).

In the Green Infrastructure Manchester the landscape is seen as a vector in development of the territorial cohesion scheme. Ravetz (2008:43) presents a similar notion with the term spatial ecology: with green infrastructure as main identifier and anchor of 'local place' and hence also promoting local identity.

The role of planners

Institutional knowledge is central to achieving sustainable policy outcomes, which stresses the role of professional planners in juxtaposing the divergent interests into legitimate comprehensive planning. Several of the case studies emphasize how planners might contribute in this regard. In the Montpellier region, skilled internationally and nationally recruited planners were attracted to create the necessary institutional capacity to succeed with the collaborative SCoT planning exercise, including those of consultancy firms who contributed with standards and spatial solutions for buildings and infrastructure. The expertise and argumentation skills of local planners were also deemed decisive for the strategy's performance in the Leipzig Parthe floodplain protection. Practitioners in Manchester region, however, observe 'short institutional memories' despite over thirty years of experience in rural development, leading to inconsistencies and poor quality performance in applying the Green Belt policy.

Planners from Koper municipality, Mazovian Region, and Warsaw Metropolitan Area also have clear ideas that could contribute to more sustainable and coherent land use developments in their region. The political weight behind these ideas must still be 'conquered.'

The role of identity

As noted earlier, cultural heritage and traditional land use practices may foster the notion of local identity for residents in the peri-urban areas. Identity of a local group, like in Land van Wijk en Wouden (Westerink, forthcoming) can be a source of organization of residents and of support to initiatives of rural development. Identity contributes to values of real estate (Brueckner, 1999). It can help attract tourists and generate incomes and economic development (Jianjiun, 2009). Identity seems connected to sense of place, and the willingness to preserve both the social and physical environment. Not only for shrinking regions is the social organization important for the provision of services that the authorities do not provide. Social development provides alternatives to economic development (Oswalt, 2006) and may support the empowerment of less favoured groups provided that economic conditions are not counteracting. Evidence of such social developments were discerned in community-based initiatives in the declining estates of Hulme and Langley in greater Manchester. A dense network of neighbourhood activity, community organizations and mutual self-help was identified (Ravetz, 2008, :26).

In Hangzhou, the protection and utilization of valuable historical and cultural resources are equally part of an innovative urban management concept, as employed in Xixi and Zhuantang districts. The created cultural quality is appreciated by residents and tourists alike and provide benefits to the local population. In Koper the landscape scenery and presence of the coast contributed to tourist values and rural population benefits from tourism by selling traditional farming produce (olive oil, etc.) and crafts. Similarly the protection of the Parthe floodplain was fostered by a feeling of ownership by the involved actors in a clearly defined green area. This illustrates the importance of the role of identity of place for preservation and development, if integrated in a win-win approach.

Ravetz mentions the processes of metropolitism or metropol-ization in Manchester region. It comprises the rapid conversion of small towns and rural areas to urban-based economies, social patterns, physical infrastructure and global networks (Ravetz, 2008:6). This characterization of urban development contains a dimension of a change towards urban identity. Another aspect of identity, place attachment, is shown in the Warsaw case study. It mentions that residents that live longer at a place are more positive about the place. Also, the more green open space was present, the more decisive the opinions of the respondents that such places needed protection.

Preserving green space

Traditional regional and local authority green belt policies have proven successful in quantitative terms in many west European countries as they have been preserved as green areas. The quality of these green areas in terms of biodiversity and recreational values (Green Heart / Green Belt in the Netherlands and the United Kingdom) are however contested. Also, the development of the areas has been neglected.

We note that a much wider trend underlies the urban-rural balance. Social capital is decreasing as the young and talented are leaving their rural homes for the urban development cores, as observed in Koper (until recently), Leipzig region, Warsaw region, and the Netherlands (De Jong *et al.*, 2009). This is a worldwide trend as demonstrated by UN population data which predict that in 2050 as many as 6 out of 9 billion world citizens will be living in urban areas. Some of the poor rural populations come to gain an income, and the successful ones –not all - leave the urban cores as soon as they can afford it, in search for a greener, quieter, and more healthy environment, if not for themselves, then for the benefit of their children and next generations. Policies of further densification of existing urban fabric, such as in the Hague, are expected to further decrease the availability of green open space. This might occur at the cost of green open space for those urban dwellers that have less political influence.

Montpellier Agglomeration, a highly attractive region, acknowledges the importance of green infrastructure at all scales and has chosen to stimulate the spreading of its future population, but with density building, accompanied by provision of public transport.

Concerning the foregoing of the development capacity of rural areas, the Hangzhou region authority (Municipality of Hangzhou, 13,000 km²) applies preferential financial policies to the rural areas and to polycentric development. This investing and spreading is considered an important contribution to the social well-being in those areas that are otherwise exempted from economic growth opportunities. Hence, the sustainable spreading of population and land use requires appropriate jurisdictions at the higher governmental level.

Support to farmers by CAP since Poland's accession to the EU, has helped in Warsaw region to halt the decrease of agricultural land (Grochowski, 2009). At the moment land prices are still relatively low. It remains to be seen how long this impact will help farmers resist selling their land to developers when land prices rise further.

Poly-centric development

Polycentric development, spreading prosperity over a larger region, as well as spreading urban pressure seems preferable. Koper and Warsaw planners aim for this approach. It is expected to provide a more sustainable spreading of land use. In Koper the polycentric development on the one hand allows development, construction of housing and business areas. On the other hand, it allows an integration of environmental quality for residents, preservation of valuable ecological areas. It reduces pressure on the coastal zone (Perpar, 2009a:21) and responds to peoples' wishes to live in peri-urban and rural areas while to work in Koper agglomeration. The semi-circular spatial development concept provides for radial axes that provide room to transport between the core area, the port, and the more rural areas where polycentric development is planned along axes with availability of green structure. It is expected to counter the unbalanced development (Perpar, 2009a:25). Also, Hangzhou has chosen to divert pressure and to develop in a polycentric way (Yang *et al.*, 2008:15, 30). Montpellier SCoT as well supports the spatial spread of density developments in a green environment that is considered as an asset for regional development and attractiveness.

The combination of polycentric spreading, collective transport, and more space for green infrastructure seems largely preferable in comparison to further densification in view of preserving rural areas and trying to further concentrate population in areas with a living environment that they do not like. This is clearly demonstrated by the reactions of the developers in the Netherlands in response to the Dutch Randstad 2040 plan in which they will not build high-rise buildings in the Hague or Rotterdam, because "people do not want to live there" and consequently the developers would not be able to sell them.

However, the density of the population in relation to the available space clearly puts limits on what development is feasible. Ideas of mobility, proximity and sustainability can not be realized in a too congested area. In our view the Communauté d'Agglomération de Montpellier, Koper municipality, Hangzhou municipality represent perimeters and availability of green open spaces that make it realistic to plan for sustainable development in a comprehensive manner. The SCoT develops a new approach, 'drawing the country side to reinvent cities' (Buyck *et al.*, 2009:7). Such an approach requires a certain amount of country-side availability that is absent for example in the Hague Region. The exact perimeter for enabling such an approach is however hard to define (Buyck *et al.*, 2009:p7). We observe that Montpellier, Koper and Hangzhou areas are growing regions, attracting tourists and new residents with their landscape attractiveness and heritage. People like the peri-urban areas for housing. For the Hague Region such peri-urban areas are rare and cannot be built upon without losing the qualities of these open areas.

Governance trends, accountability, policy making horizon

More sustainable development of urban fringe areas that serve the residents of both urban, fringe and rural areas will require first of all that the peri-urban areas are recognized in their own right, rather than merely that of a spill-over area. Inevitably,

different interests will clash and need to be resolved, and this will require strong government intervention.

Partnerships between public and private stakeholders can provide opportunities for new alliances, investments and innovative thinking, but require statutory agreements to avoid ad hoc building permits that further social cleavages as well as environmental deterioration of the peri-urban areas. We note in our case studies that the role of government is changing: previous strict policies and state intervention to protect green areas are loosening up in part of the case study countries (Slovenia, Poland, Netherlands) and leaving room for increased discretionary judgements when faced with multiple development interests. Hence, as further discussed below, we see the need for strengthening the government's power over the peri-urban development, and propose that the regional level is best suited to take this role.

Several aspects connected to democracy and accountability of decision-making concerning peri-urban areas may be discussed here. First, there is the issue of how the constituency is defined. In most of our studied areas, public elections of regional politicians are absent. Functional urban regions in Montpellier, the Hague region, Leipzig region, and Greater Manchester surpass the regional or provincial authorities. And most peri-urban and rural parts of the urban regions are politically weak due to their fewer residents/voters. The question may be posed whether the democratic system allows for taking into account the interlinkages between urban and rural areas. In the Hague Region, for example, the local authority of Midden Delfland is a green area, without any urban settlement and thus less voting power. Therefore, former small municipalities have deliberately merged into one entity in order to obtain a stronger position against the adjacent towns.

A second reflection concerns the issue of the short horizon of policy making with frequent changes of local governments according to election periods, sometimes paired with the limited scale of budget and financial powers, which largely constraints the scope of action. Both Warsaw and Koper suffer considerably from such risks. In such situations, it may be quite understandable that local politicians are subject to great pressure from developers who offer immediate economic benefits that are more easily grasped than those of long term investments in 'green' sustainability values. Here, we note that the term of office in Montpellier for elections of local politicians is six years, as compared with four years in the other European countries. The longer term in office might provide politicians with longer time to wait for positive results from otherwise unpopular decisions.

As may be expected, different governance patterns can be discerned when comparing the Eastern Europe (and Chinese) situation with that of Western Europe. Public-private partnerships and voluntary action is commonplace in the west (as described for Great Britain, France, The Netherlands and Germany), but rarely, if at all, occurs in China, Slovenia and Poland where the state dominates the policy-making of peri-urban areas. Having said that, however, it is also noted that much of the planning is piecemeal and non-coordinated, and that private investors have ample opportunities to lobby and buy out land for economic profit.

The case studies suggest that considerable regional governmental power is needed to steer developments and to balance development in terms of economic, environmental and societal needs. Weaknesses in performance of well-intended strategies tend to be explained either by missing legal force or control on the land resource, in combination with lack of financial means, inadequate culture of spatial planning or cooperation at regional level. Montpellier region seems to have overcome most of these difficulties. Similarly, in the Parthe floodplain in the Leipzig area the three municipalities successfully combine legal jurisdiction through local land use plans, involvement of all essential partners including land owners with the development of a discourse that enjoys the support of environmental NGOs and the general public. Such cooperation is absent in Warsaw Metropolitan area and the Mazovian region, but seems badly needed there in order to resolve the current inertia in public planning for sustainable development.

The role for new governance actors – including environmental groups, neighbourhood groups, and local business and farmers – is stressed in many of the case studies. These groups can, although at times competing with public interest, contribute to innovative thinking and development of new options and solutions. Examples were given by a Dutch developer in the Hague Region who provided a new development perspective for Scheveningen harbour, while in the Koper area the port of Koper supported the restoration of Skocjanski zatok nature reserve, initiated by nature NGO DOPPS/Bird Life. Environmental groups were active in several of the case studies, contributing to promoting public awareness and political pressure for the local governments to prioritise the preservation of green areas and biological diversity. And farmers' organisations helped promote diversification of the rural economy through, for instance, Rural Forums in Manchester and the Farming for Nature project in the Hague region.

Reflection on the analytical concepts used

The application of the fluid 'sustainability' concept to peri-urban land use and peri-urbanisation raises many questions. This is due to the diverse perceptions of the notion of sustainable development, which combines and balances between economic, social and environmental goals, both locally and globally, and in both the short and longer term. It is also due to the nature of the peri-urban areas, generally a complex mix of pressures, drivers and processes in many different sectors, at different spatial scales. In particular the peri-urban role is often that of a support system for dominant urban activity – hence the peri-urban can only be understood in terms of the urban, both adjacent cities and also in global urban systems. The implication is that the peri-urban sustainability agenda is complex and inter-connected, with many layers which need careful analysis. In practice, our findings support those of several others, namely that the concept of sustainable development has been widespread on all levels of government at least at the declaratory level (Owens and Cowell, 2002; Evans *et al.*, 2004; Baker and Eckerberg, 1998). However, the interpretations of what is sustainable vary greatly across countries and case study contexts, as well as the allocated responsibilities for public planning which are far from politically neutral. In line with Owens and Cowell (2002), we find that the weaker conceptions of sustainability seem to dominate, those which underplay conflict, but which still in many instances may end up promoting incremental greening and which increasingly accept that environmental losses should be compensated for. Indeed, we find that the quest for opening up spaces for dialogue about the claims of environmental integrity, social justice and a dignified quality of life, and on the substantial moral and political task of adjudicating between claims that cannot always be happily reconciled (Owens and Cowell, 2002:168) is instigated by the notion of 'sustainability' and 'sustainable development' and as such an important contribution to our analysis.

The governance concept, and especially the distinction by Hooghe and Marks (2003) of the two main types of governance is useful: it distinguishes the different forms of governance addressing the multi-layers and the horizontal dimensions. Likewise, the policy arrangement concept with the four main variables measuring different forms of governance patterns, reflected in so called policy dimensions: including rules, resources, coalitions and discourses enabled us to see more clearly what enabled certain policies or strategies to be effectively implemented while other strategies seem to lack behind in performance. We found the 'policy arrangement' concept most useful as our framework for analysis since it facilitated the distinction between public and private spheres of governance and the inclusion of power relationships in the form of financial and land resources as well as dominant discourses in the examination of the case studies.

Speaking with Hooghe and Marks (2003) terminology, we conclude that the governance of peri-urban areas neither fits neatly with the characteristics of Type I nor Type II governance. At least judging from how the formal rules of the game have developed in

more recent times, in Warsaw, Leipzig-Halle, Montpellier, Hangzhou and Koper Type I appears most dominant, while in the Hague Region and Greater Manchester type II seems dominant. However, since the jurisdictions are blurred in terms of unclear boundaries for the peri-urban as a targeted area for policy intervention, and with multiple overlapping public interests at hand, there are few state control possibilities also at the regional and local level of government to signify any movement towards Type I governance. At the same time, however, the constituencies of peri-urban areas are poorly organized to provide functional specificity as required by Type II governance even though attempts are being made in this direction. In Type II governance, the jurisdictions are task-specific, memberships are intersecting, the number of jurisdictional levels is unlimited and the design is flexible. This leaves ample room for powerful interests to intervene in the implementation of public policy. Our analysis has shown that economic interests prevail in the implementation of non-coordinated land use policies in the urban fringe. The apparent conflicts between the development of building and infrastructure and the provision of environmental values in peri-urban areas is thus not resolved by Type II governance constellations. The governance of these areas is indeed characterized by democratic challenges in the pursuit of sustainable development.

4 Policy recommendations

On the basis of the previous study based on evidence from the case studies we could formulate the following recommendations to European, national and /or regional authorities and the public.

1. Acknowledge the importance of the peri-urban areas and rural hinterland and the interaction and interdependency between the urban core and these areas for sustainable development. Both the electorate and the politicians and civil servants should recognize this need for interaction and interdependency in growth policies and display the tacit values and balances to be struck between competing goals.
2. Build institutional expertise for promoting sustainable development: Sustainable development demands for balanced decision-making, conflict management capacities and expertise in spatial planning and government. Without these qualities at hand, a region misses the capacity needed for pursuing sustainable spread of urban and rural land use within its territory.
3. Develop growth management with coordination mechanisms for urban and rural policies at regional level. Ensure integration between sectoral regional policies. The relative strength of the regional authorities in legislation, procedures, financial means and competence matters to coordinate and balance regional development and municipal initiatives. The regional level government should have the capacity to redistribute development and create opportunities in order to avoid congested cores versus economically and demographically shrinking areas, social exclusion and segregation.
4. Ensure that regions are large enough to cover the Rural Urban Region comprising residents that commute into the city and a sufficiently large area that delivers ecosystem services for which it should be obliged to take financial responsibility as well. Explore the possibilities and implications of elected councils for Rural Urban Regions in view of sustainable development to increase political accountability for their actions at regional level.
5. Explore lease of land and other land management options as means to keep control over land use and to return build up areas to open space when urban agglomerations become too dense or industries, business, residential areas are no longer contributing to a healthy or economic spatial layout.
6. Promote capillary green structure/green infrastructure from the rural areas into the urban areas up to the front door of urban dwellings, to create urban living environments in build up areas that allow all income groups and all generations to enjoy green open space and stay in contact with the green planet that feeds them.
7. Further develop and apply economic compensation schemes for ecological services and to retain a standard of living in rural parts of the wider RUR areas that enable residents to make a living. EU state intervention rules should be adapted to free up for such local incentives to rural and peri-urban development. Study and adopt possibilities to reduce taxation in rural areas to enable a less economic productive situation and more sustainable lifestyles, enabling the ecosystem services in these areas to obtain priority over economic development.
8. Coordinate public participation and inclusion of other stakeholders to avoid waste of energy and initiatives and to contribute to synergy between actions and innovations that different social actors can conceive and develop. Evoke and facilitate the expression of self-interest from both the economic sectors and civic society organisations in local sustainability initiatives. Strong government is needed to avoid

undemocratic influence of active interest groups from developers, environmental NGOs, and/or neighbourhood groups over the less voiced groups and citizens.

9. Pursue targeted strategies and measurable objectives in order to enable monitoring and evaluation and contribute to informed improvement of policies. Be alert to the tension between consensus building in the form of vague rhetoric and the pursuit of concrete and effective policies.

References

- Aalbers, C.B.E.M., T. van Dijk (2008a) J.A.F. Remix, PLUREL
- Aalbers, C. and T van Dijk (2008b) Joint Assessment Framework, PLUREL
- Aalbers, C.B.E.M., T. van Dijk, P.D. van der Jagt, J. Westerink (2009a) Analysis of regional spatial planning- and decision making strategies and their impact on land use in the urban fringe. Case study of The Hague Region, The Netherlands. PLUREL
- Aalbers, C., P. van der Jagt, J. Westerink (2009b) Assessment of strategies. Case study The Hague Region, the Netherlands PLUREL
- Baker, S. and K. Eckerberg (2008) In Pursuit of Sustainable Development: New governance practices at the sub-national level in Europe, (London: Routledge).
- Bauer, Annette (December 2009) Assessment report on local and regional government and planning strategies, M. 3.3.13 Leipzig. PLUREL
- Bauer, Annette (February 2010) Assessment report on local and regional planning strategies, M. 3.3.13. Leipzig. PLUREL
- Brueckner (1999) Why is central Paris rich and downtown Detroit poor ? An amenity-based theory, CORE Discussion Papers 1996065, Université catholique de Louvain
- Buyck, Jennifer, Jean-Pierre Chery , Françoise Jarrige (2008) Analysis of spatial planning and decision making strategies and their impact on land use in the urban fringe. Montpellier case study. PLUREL
- Buyck, J., J-P Chery, F. Jarrige (2009) Assessment report of strategies, Montpellier case study. PLUREL
- Derks, W., P.Hovens, L.E.M. Klinkers (Febr. 2006) Structurele Bevolkingsdaling. Een urgente nieuwe invalshoek voor beleidsmakers.
- Eckerberg, K. and M Joas (2004) 'Multi-level Environmental Governance: a concept under stress?' Local Environment, Vol. 9, No. 5, pp405-412.
- Evans, B. Joas, M, Sundback, S. and Theobald, K., (2004) Governing Sustainable Cities, (London: Earthscan).
- Grochowski, Miroslav and Marek Pieniżek (December 2008) Analysis of regional spatial planning and decision making strategies and their impact on land use in the urban fringe. Case study: Warsaw Metropolitan Area, Poland. PLUREL
- Grochowski, Miroslav (December 2009) Assessment report on local and regional governance and spatial planning strategies, Case study Warsaw Metropolitan Area. Institute of Geography, Polish Academy of Sciences Warsaw Poland. PLUREL
- Herfert, G. 2006, Wohnsuburbanisierung in den Verdichtungsräumen der neuen Bundesländer, *Europa Regional* 1, 32-46.
- Hooghe, L. and Marks, G. (2003) 'Unraveling the Central State, but How? Types of multi-level governance', *The American Political Science Review*, Vol. 97, No. 2, pp233-243.

- Jänicke, M. and H. Weidner (eds.), (1997), *National Environmental Policies: A Comparative Study of Capacity Building*, (Berlin: Springer-Verlag).
- Jong, A. de en C. van Duin (2009). Regionale prognose 2009-2040: vergrijzing en omslag van groei naar krimp. *Bevolkingstrends*, 4^e kwartaal 2009.
- Katz, P. *et al.*, ed (1994) *The New Urbanism: Toward an Architecture of Community*, (Print Vision, Portland).
- Kohler Koch, B. and R. Eising, ed (1999) *The Transformation of Governance in the European Union*, (London: Routledge).
- Kooiman, J. (1993) (ed.) *Modern Governance: Government-Society Interaction*, (London: Sage).
- Lüdke-Daldrup, E. 2001, Die perforierte Stadt – eine Versuchsanordnung, *Stadtbauwelt* 150, 40-45.
- Marks, G. (1993) ‘Structural Policy and Multilevel Governance in the EC’, in Cafruny, A. and G. Rosenthal, ed, *The State of the European Community*, (CO, Boulder), pp391-411.
- Nuissl, H., Rink, D. 2005, The ‘production’ of urban sprawl in eastern Germany as a phenomenon of post-socialist transformation, *Cities*, Vol. 22, No.2, pp. 123-134.
- Oswalt, Philipp (2006) *Shrinking Cities*
- Owens, S. and R. Cowell (2002) *Land and Limits: Interpreting sustainability in the planning process*, (London: Routledge).
- Perpar, Anton (August 2009a) Analysis of regional spatial planning and decision-making strategies and their impact on land use in the urban fringe. Case study Koper. PLUREL
- Perpar, Anton (August 2009b) Assessment report, Assessment of regional strategies Koper case study, Slovenia, first draft-for internal use only. University of Ljubljana, Biotechnical Faculty. PLUREL
- Pierre, J. (2000), Introduction: Understanding Governance. In Pierre, J. (ed.) (2000), *Debating Governance Authority, Steering and Democracy*, (Oxford: Oxford UP).
- Pierre, J. and G Peters (2005) *Governing Complex Societies: Trajectories and Scenarios*, (Basingstoke: Palgrave MacMillan).
- Ravetz, Joe (2008) The City Region in time and space. Analysis of regional spatial planning and decision-making strategies, and their impact on land use in the urban fringe. PLUREL
- Ravetz, Joe (2009) Strategic action for the Manchester rural urban region. Assessment report on peri-urban governance and planning strategies. PLUREL
- Rhodes, R.A.W. (1996) ‘The New Governance: Governing without Government’ *Political Studies*, Vol. XLIV, pp652-667.
- Sleszynski, P., J. Banski, M. Degorski, T. Komornicki, M. Wieckowski (2007) Stan zaawansowania planowania przestrzennego w gminach, IGiPZ PAN, Warszawa, 2007 in Grochowski and Pieniazek (2008)

Sinn, Annette, Dagmar Haase, Anne Walde (2008) Analysis of regional spatial planning and decision making strategies and their impact on land use in the urban fringe. D 3.3.6 Leipzig. PLUREL

van Tatenhove, J., Arts, B. and P. Leroy, ed (2000) Political Modernisation and the Environment: The Renewal of Environmental Policy Arrangements, (Dordrecht/Boston/London: Kluwer)

Webster D.R. Cai J., Muller L., Luo B., 2003. emerging Third Stage Peri-Urbanization: Functional Specialization in the Hangzhou Peri-Urban Reion. Asia-Pacific Research Center, Stanford University, Monograph, [http://aparc.stanford.edu/publications/emerging third stage periurbanization functional specialization in the Hangzhou periurban region/](http://aparc.stanford.edu/publications/emerging%20third%20stage%20periurbanization%20functional%20specialization%20in%20the%20Hangzhou%20periurban%20region/)accessed January 2009

Yang Jianjun, He Youjoun, Stephan Pauleit, Martin Spiekermann, Irene Burkhardt (2009) Analysis and assessment of regional and local government and planning strategies Hangzhou Case Study. PLUREL

Yang Jianjun, Ni Jingjing, He Youjoun, Stephan Pauleit, Martin Spiekermann, Irene Burkhardt, Yang Fei (2009) Assessment of regional and local government and planning strategies. Hangzhou Case Study. PLUREL